MITSUBISHI ELECTRIC

AIR-COOLED ROOFTOP PACKAGED AIR CONDITIONERS

Series

COOLING ONLY :PR-5,8,10,15,20

HEAT PUMP :PRH-5,8,10,15,20
PRH-5,8,10,15,20-L

DATA BOOK

CONTENTS

Specifications subject to change without notice.

SAFETY FOR USE

Before conducting installation work, please read this ''SAFETY FOR USE" carefully for correct installation.
Since the caution items shown here contain important description relative to safety, please observe them without fail.

⚠ **Warning**	Erroneous handling gives a high possibility to induce serious results such as death or heavy injury.
⚠ **Caution**	Erroneous handling may induce serious injury depending on the situation.

After reading, please keep it with you together the Instruction Manual, and read it again at the movement of the unit.

⚠ Warning

The unit should not be installed by the user.
If the unit is installed improperly, explosion, water leakage, electric shock or fire may be result.
Consult your dealer or specialist subcontractor for repair and movement.

For installation, conduct the work correctly by following the Installation Manual.
Improper installation may cause a fire, electrical shock or water leakage.

Install the unit on a spot sufficiently durable against the unit weight.
Insufficient durability can cause an injury by the falling down of unit.

All electric work must be performed by licensed technician, according to local regulations and the instructions given in this manual.
The units should be powered by dedicated power lines.
Power lines with insufficient capacity or improper electrical work may result in electric shock or fire.

Use only the specified cables for wiring.
The connections must be made secured without tension the terminals.
Improper connection or fastening can cause a fire or electrical shock.

The unit should be installed according to the instructions in order to minimize the risk of damage from earthquakes, typhoons or strong winds.
Improper installation work can cause an injury by the falling down of the unit.

The unit must be installed on stable, flat surface, in a place where there is no accumulation of snow, leaves or rubbish.

The unit should be installed in a location where air and noise emitted by the unit will not disturb the neighbors.
If the unit is loosely mounted, it may fall, and cause injury.

Never repair the unit, remodel or transfer it to another site by yourself.
If they are performed improperly, water leakage, electric shock or fire may result. If you need to have the unit repaired or moved, consult your dealer.

Use only the specified refrigerant (R-22) to charge the refrigerant circuit.
Do not mix it with any other refrigerant and do not allow air to remain in the circuit.
Air enclosed in the circuit can cause high pressure resulting in a rupture and other hazards.

After completing installation work, make sure that refrigerant gas has not leaked.
If refrigerant gas has leaked and exposed to fan heater, stove, oven and so on, it may generate noxious gases.

Take a proper measure to suppress the critical concentration of refrigerant if leaked when installing the unit in a small room.
The limit density is made not to be exceeded even if the refrigerant leaks by any chance.
You are necessary to ventilation measures to prevent the accident. If the refrigerant leaks, hypoxia accident may caused.
For the countermeasure to be taken, consult your dealer.

The terminal block cover of unit must be firmly attached to prevent entry of dust and moisture.
Improper mounting of the cover cause electric shock or fire.

Use only optional parts authorised by Mitsubishi Electric.
If the accessories are installed improperly, water leakage, electric shock or fire may result.
Ask your dealer or an authorised company to install them.

⚠Caution

Refrain from installing the unit in an area where flammable gas can accumulate around the unit.
If the flammable gas can accumulate around the unit, an explosion can occur.

When the unit is installed at telecommunication centers or hospitals, take a proper provision against noise.
The erroneous operation of air conditioner may be induced by inverter equipment, independent power device, medical equipment or communication equipment.
While the erroneous operation of medical equipment or communication equipment may caused by the air conditioner.

For special use as for foods, animals/plants, precision equipment or art objects, the applicability should be confirmed beforehand.
As the use for the applications other than that designed originally may result in the deterioration of the quality. Consult your dealer in this regard.

Do not use the unit under a special atmosphere.
Installing the unit at the following places may cause a trouble, a place where much machine oil, salt sonnet, humidity or dust, spa district, a place full of sulfur gas, volatile gas, or corrosive gas, a place near high frequency processing machine.

Thermal insulation of the drain pipes is necessary prevent dew condensation.
If the drain pipes are not properly insulated, condensation will result and drip on ceiling, floor or other possessions.

The drain piping must process by surely,and insulate the drain piping not to be dewy.
When the room humidity exceeds 80% or when the drain pipe is clogged, water may drip from the indoor unit. The outdoor unit produces condensation during the heating operation.
Make sure to provide drainage around the outdoor unit if such condensation is likely to cause damage.

Install drain piping according to this Installation Manual to ensure proper drainage.
Place thermal insulation on the pipes to prevent condensation.
Improper drain piping may cause water leakage and damage to furniture or other possessions.

The unit must be properly earth connected.
Do not connect the earth wire to gas pipe, city water pipe, lightning rod or telephone earth wire.
Improper earth connection may cause electrical shock.

When installing at a watery place, provide an electric leak breaker.
Failure to mount the electric leak breaker may cause electrical shock.

Use breaker or fuse with proper capacity.
Make sure that there is a main power switch.
Using a wire or a copper wire instead of proper capacity of fuse can cause fire or trouble.
Other appliances connected to the same line could cause an overload.

For the power lines, use standard cables of sufficient current capacity.
Otherwise, current leakage, overheating or fire may occur.

When installing the power lines, do not apply tension to the cables.
The tighten or loosen the connections may cause generate heat and cause fire.

Arrange the configuration of wiring not to bring up the panel and terminal cover, and fasten the panel and terminal cover securely.
The poor mounting of the panel or terminal cover may cause the heat generation of the terminal connection, a fire or electrical shock.

Do not wash the unit with water.
If washed with water, electrical shock may be caused.

Do not handle the switch with wet hands.
Otherwise electrical shock can be resulted.

Be very careful on handling the unit.
When carrying in outdoor unit, be sure to support it at four points.
Carrying in and lifting with 3-point support may make outdoor unit unstable, resulting in a fall of it.
The unit should not be carried by only one person if it is more than 20kg.
Some units use PP bands for packing.
Do not use any PP band for delivery purpose.
Do not touch the heat exchanger fins with your bear hands.
Doing so may cut your hands.
Be sure to safely dispose the packaging materials.
Packaging materials, such as catches and other metal or wooden parts, may cause stabs or other injuries.
Tear off and discard plastic packing bags so that children will not play any of them.
If children play with a plastic bag which was not torn off, it may cause a risk of suffocation.

The base and attachments of the unit should be periodically checked for looseness, cracks or other damage.
If such defects are left uncorrected, the unit may fall and cause personal injury or property damage.

Turn on the main power switch more than 6 hours before starting operation.
Do not turn the main power switch OFF during seasons of heavy use, doing so can result In failure.

Do not touch the compressor or refrigerant piping without wearing glove on your hands.
Touching directly such part can cause a burn or frostbite as it becomes high or low temperature according to the refrigerant state.

Do not touch the metal edges inside the unit without wearing glove on your hands.
Touching directly it may injure your hands.

Do not remove the front panel or the fan guard from the unit when it is running.
You could be injured if you touch rotating, hot or high-voltage parts.

Do not operate the air conditioner without the air filter set place.
Dust may accumulate, and cause a failure.

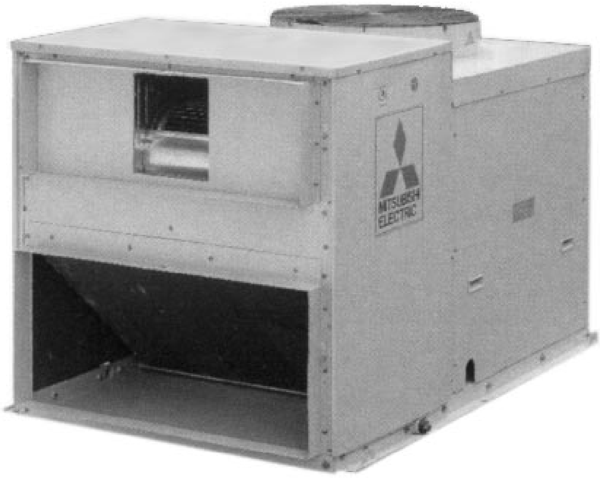
At emergency (if you smell something burning), stop operation and turn the power source switch off.
Continuing the operation without eliminating the emergency state may cause a machine trouble, fire, or electrical shock.

After stopping operation, be sure to wait for five minutes before turning off the main power switch.
Otherwise, water leakage or unit failure may occur.

A COMPLETE LINE UP

PR-5YC
PRH-5YA
PRH-5YA-L

Cooling capacity	(PRH ONLY) Heatling capacity
14,000 kcal/h	13,000 kcal/h
55,600 BTU/h	51,600 BTU/h
16.3 kW	15.1 kW





PR-8YC
PRH-8YA
PRH-8YA-L

Cooling capacity	(PRH ONLY) Heatling capacity
20,500 kcal/h	19,800 kcal/h
81,300 BTU/h	78,600 BTU/h
23.8 kW	23 kW

PR-10YC
PRH-10YA
PRH-10YA-L

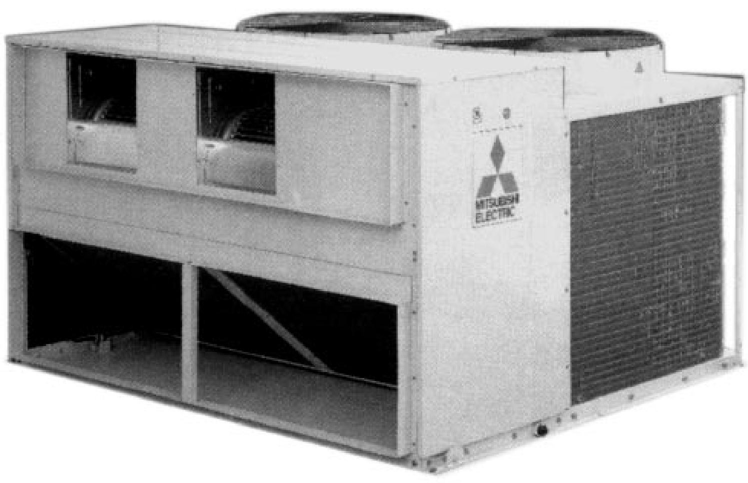
Cooling capacity	(PRH ONLY) Heatling capacity
25,500 kcal/h	27,500 kcal/h
101,200 BTU/h	109,100 BTU/h
29.7 kW	32 kW

PR-15YC
PRH-15YA
PRH-15YA-L

Cooling capacity	(PRH ONLY) Heatling capacity
39,800 kcal/h	39,100 kcal/h
157,900 BTU/h	155,100 BTU/h
46.3 kW	45.5 kW

PR-20YC
PRH-20YA
PRH-20YA-L

Cooling capacity	(PRH ONLY) Heatling capacity
52,300 kcal/h	52,600 kcal/h
207,500 BTU/h	208,700 BTU/h
60.8 kW	61.2 kW



FEATURES

High Sensible Cooling Capacity

The sensible cooling capacity has been significantly improved through optimized heat exchanger design.

Comfort Heating

The PRH series are designed to provide effective heating even when the outside temperature is down to 0˚C. The PRH-L series are designed to provide effective heating even when the outside temperature is down to -10˚C.In addition, the twin circuit models, PRH-15,20YA, PRH-15,20YA-L are provided with control features that prevents both refrigeration circuits defrosting at the same time. This ensures constant comfort conditions during defrost and varying loads.

Highly Efficient Operation

The EER (Energy Efficiency Ratio) on these models is greatly improved by revised design specifications and by being manufactured stringently to Mitsubishi Electric high quality standards.

Flexibility of Supply Air Delivery

All series feature belt driven Supply Air fans enabling accurate matching of actual airflow rates to the specified quantities. Accurate commissioning is assisted by the capability to exchange pulleys and belts if necessary to achieve the desired air balance.

Labor Saving Installation

Because of the single unit configuration, all refrigeration work can be omitted. The unit operation can commence immediately after connection to the power supply, drain piping, ducting and control system.

Low Ambient Cooling

In applications with relatively high internal loads, there may be a requirement for all series to operate on cooling at low ambient conditions. An optional accessory is available to maintain the refrigeration circuit in balance at outdoor temperatures as low as 0˚C (PRH only).In case of PR,PRH-L is -5˚C.
Please consult your local Mitsubishi Electric Sales office for application advice on this accessory.

Wide Electrical Control Capability

All series may be ordered in either of two control configurations.
The factory standard is for provision of a 24 volt terminal block to enable a field wired control of the contractors choice to be connected.
Alternatively, for models PR-5-10YC,PRH-5-10YA, PRH-5-10YA-L the intelligent "K" series remote control system may be ordered. The K control utilizes a microprocessor and includes liquid crystal display with touch pad for adjustment of control parameters.
These options give the flexibility to enable connection to Building Management Systems, smoke spill cycles, economy cycles, remote monitoring etc.
Please consult your local Mitsubishi Electric Sales office for application advice on these controls.

DESCRIPTIONS

MITSUBISHI ELECTRIC Rooftop Air Conditioners Series PR,PRH,RPH-L are available in a wide range of sizes and models to enable the designer to select the best model for each application.
The complete range has been designed for outdoor installation, and the units are provided with the latest technological features to ensure economical, reliable and comfortable ducted type air conditioning.
All series units are completely assembled, wired and strictly tested at the factory. They consist of a compressors, air-cooled condensers, evaporator fans, condenser fans and auxiliary and control equipment, completely packaged in a water-proof enclosure.
With the development of all series demands for such features as light weight, compactness, increased capacity, appropriate static pressure , air flow control, and having flexibility of inter-facing energy saving electronic controls Mitsubishi Electric have met market expectations.

MECHANICAL SPECIFICATIONS

General

All units are factory assembled, piped, internally wired and fully charged with R-22. They are also tested and checked under a strict quality control system in the factory. All units are designed for outdoor rooftop or ground level installation. Exterior surfaces of all units are phosphatized, zinc-coated steel with acrylic resin primer and ivory white baked enamel finish.

Refrigeration Controls

Refrigeration controls include condenser fan, evaporator fan and compressor contactor. Each circuit of the unit has a separate set of refrigeration controls. PR, PRH,PRH-L-15,20 units have two independent circuits.

Compressors

All units have high efficiency type hermetic line starting compressors. Compressors are equipped with thermal overload protector, overcurrent relay and high pressure protection controls. Crankcase heaters are standard .

Evaporator Coils

Highly efficient cross-finned coils are applied to provide a larger cooling capacity with low air speed on the coil. Coils are made of 9.52mm OD and 0.35mm thick seamless copper tubing mechanically bonded to 0.12mm thick aluminium fins and are factory leak tested at a pressure of 3.3MPa. They are provided with strainers attached to the capillary tubes to further ensure a clean system.

Condenser Coils

Unnecessary power input due to higher discharge pressure is avoided by high performance designs of cross-finned coils. Condenser coils are made of 9.52mm OD, 0.35mm thick seamless copper tubes mechanically bonded to 0.12mm thick aluminium plate fins. Each coil is factory pressure and leak tested at 3.3MPa.

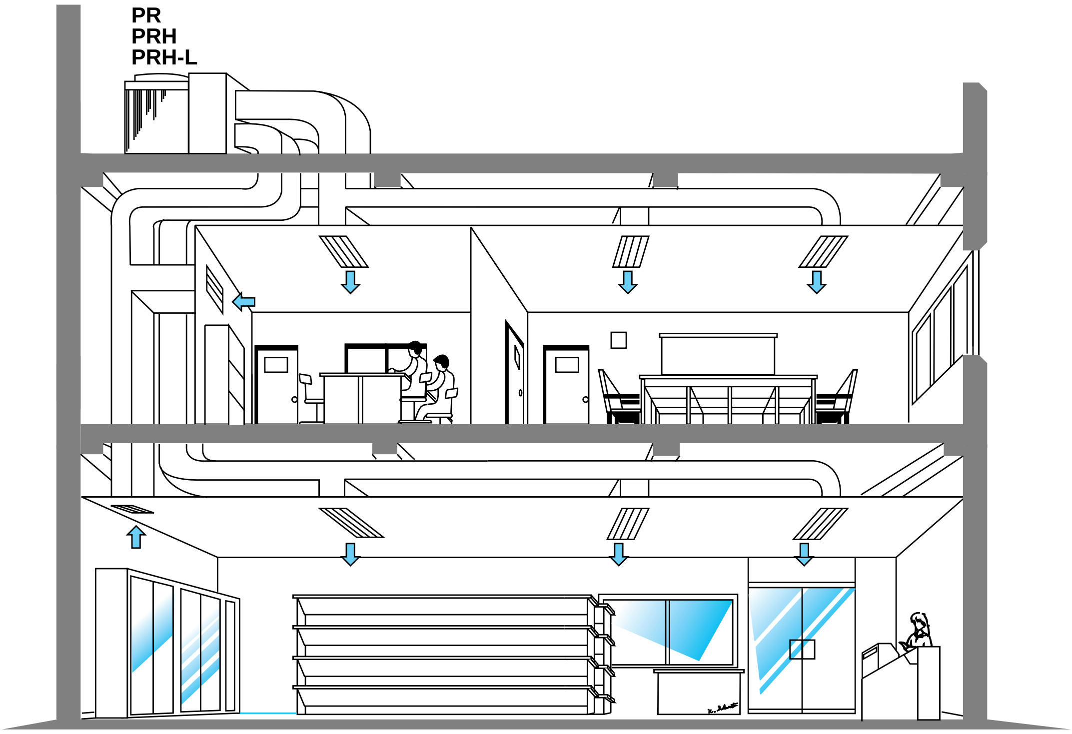
Evaporator Fans

Belt-drive, forward curved, centrifugal type fans made of galvanized steel are used to deliver an accurate airflow at low noise level.

Condenser Fan

This direct-drive propeller fan is dynamically balanced, to ensure smooth airflow. A weather-proof three-phase squirrel cage induction motor is used to drive the condenser fan.

TYPICAL INSTALLATION EXAMPLE



SPECIFICATIONS

ITEM			PR-5YC PRH-5YA PRH-5YA-L	PR-8YC PRH-8YA PRH-8YA-L	PR-10YC PRH-10YA PRH-10YA-L	PR-15YC PRH-15YA PRH-15YA-L	PR-20YC PRH-20YA PRH-20YA-L
TOTAL COOLING CAPACITY (GROSS)		kW	16.3	23.8	29.7	46.3	60.8
		BTU/h	55,600	81,300	101,200	157,900	207,500
		kcal/h	14,000	20,500	25,500	39,800	52,300
SENSIBLE COOLING CAPACITY (GROSS)		kW	13	19.7	25.3	38.4	50.2
		BTU/h	44,400	67,100	86,500	130,900	171,400
		kcal/h	11,200	16,900	21,800	33,000	43,200
TOTALHEATING CAPACITY (GROSS) (PRH-YA,PRH-YA-L ONLY)		kW	15.1	23	32	45.5	61.2
		BTU/h	51,600	78,600	109,100	155,100	208,700
		kcal/h	13,000	19,800	27,500	39,100	52,600
CAPACITY STEPS		%	0-100			0-50-100	
REFRIGERANT			R22(FACTORY CHARGED)				
REFRIGERANT CONTROL			CAPILLARY TUBE				
EXTERNAR FINISH			ACRYLIC RESIN COATING				
COLOR (MUNSELL NO.)			MUNSELL 5Y8/1				
DIMENSION	HEIGHT	mm	1,000			1,200	
	WIDTH	mm	1,000	1,300		1,990	
	DEPTH	mm	1,600			1,840	
NET WEIGHT		kg	299	393	413	698	729
COMPRESSOR			HERMETIC LINE START (RECIPROCATING)				
MOTOR OUTPUT		kW	3.73	5.6	7.5	2X5.6	2X7.5
INDOOR COIL			CROSS FIN COIL				
FAN			CENTRIFUGAL (GALVANIZED STEEL) - BELT DRIVE				
FAN MOTOR			THREE PHASE CAGE INDUCTION MOTOR				
FAN MOTOR OUTPUT		kW	0.75	1.1	1.5	2.2	3
NOMINAL AIR FLOW		CMM	54	84	100	168	190
		CFM	1,907	2,967	3,532	5,934	6,711
		L/S	900	1,400	1,660	2,800	3,160
EXTERNAL STATIC PRESSURE		mmAq	10	10	10	20	20
		Pa	100	100	100	200	200
OUTDOOR COIL			CROSS FIN COIL				
FAN			PROPELLER - DIRECT DRIVE				
FAN MOTOR			THREE PHASE CAGE INDUCTION MOTOR				
FANMOTOR OUTPUT		kW	0.15	0.35	0.35	2X0.35	2X0.35
NOMINAL AIR FLOW		CMM	95	185	185	2X185	2X185
		CFM	3,355	6,534	6,534	2X6,534	2X6,534
		L/S	1,583	3,083	3,083	2X3,083	2X3,083
DRAIN CONNECTION		mm	25.4				
PROTECTION DEVICES			HIGH PRESSURE SWITCH,FUSE OVER CURRENT RELAY (COMP& INDOOR FAN,OUTDOOR FAN) INTERNAL THERMOSTAT (COMP. & OUTDOOR FAN) ANTI SHORT-CYCLE TIMER,FREEZE & FROST PROTECTOR				

NOTE 1. NOMINAL COOLING & HEATING CAPACITIES ARE BASED FOLLOWING CONDITIONS.
COOLING : INDOOR:27˚C DB, 19˚C WB ; OUTDOOR:35˚C DB.
HEATING : INDOOR:21˚C DB ; OUTDOOR:7 DB, 6˚C WB.
2. CAPACITIES ARE GROSS CAPACITIES WHICH DO NOT INCLUDE A DEDUCTION FOR EVAPORATOR FAN MOTOR HEAT.

ELECTRICAL DATA

Cooling

VOLT	ITEM		PR-5YC PRH-5YA PRH-5YA-L	PR-8YC PRH-8YA PRH-8YA-L	PR-10YC PRH-10YA PRH-10YA-L	PR-15YC PRH-15YA PRH-15YA-L	PR-20YC PRH-20YA PRH-20YA-L
415V	TOTAL INPUT	kW	5.4	8.3	11.4	16.8	22.7
	TOTAL RUNCURRENT	A	10.3	15.9	20.2	30.8	39.1
	POWER FACTOR	%	73	73	79	76	81
	START CURRENT	A	62	87	100	115	135
	COMPRESSOR INPUT	kW	3.92	6.46	9.22	2 X 6.55	2 X 9.30
	RUNCURRENT	A	7.44	11.70	15.62	2 X 11.74	2 X 15.22
	I/D FAN INPUT	kW	1.24	1.30	1.64	2.62	3.02
	RUNCURRENT	A	2.26	2.90	3.28	4.72	6.06
	O/D FAN INPUT	kW	0.24	0.54	0.54	2 X 0.54	2 X 0.54
	RUNCURRENT	A	0.6	1.3	1.3	2 X 1.3	2 X 1.3
380V	TOTAL INPUT	kW	5.4	8.3	11.4	16.8	22.7
	TOTAL RUNCURRENT	A	11.2	17.3	21.9	33.6	42.6
	POWER FACTOR	%	73	73	79	76	81
	START CURRENT	A	68	95	109	126	147
	COMPRESSOR INPUT	kW	3.92	6.46	9.22	2 X 6.55	2 X 9.30
	RUNCURRENT	A	8.06	12.71	16.90	2 X 12.80	2 X 16.57
	I/D FAN INPUT	kW	1.24	1.30	1.64	2.62	3.02
	RUNCURRENT	A	2.48	3.17	3.58	5.16	6.62
	O/D FAN INPUT	kW	0.24	0.54	0.54	2 X 0.54	2 X 0.54
	RUNCURRENT	A	0.66	1.42	1.42	2 X 1.42	2 X 1.42

Heating (PRH,PRH-L Only)

VOLT	ITEM		PRH-5YA PRH-5YA-L	PRH-8YA PRH-8YA-L	PRH-10YA PRH-10YA-L	PRH-15YA PRH-15YA-L	PRH-20YA PRH-20YA-L
415V	TOTAL INPUT	kW	4.8	7.0	9.6	14.4	19.3
	TOTAL RUNCURRENT	A	9.8	14.1	18.2	27.2	34.8
	POWER FACTOR	%	68	69	73	74	77
	START CURRENT	A	62	87	100	111	131
	COMPRESSOR INPUT	kW	3.32	5.16	7.42	2 X 5.35	2 X 7.60
	RUNCURRENT	A	6.94	9.90	13.62	2 X 9.94	2 X 13.07
	I/D FAN INPUT	kW	1.24	1.30	1.64	2.62	3.02
	RUNCURRENT	A	2.26	2.90	3.28	4.72	6.06
	O/D FAN INPUT	kW	0.24	0.54	0.54	2 X 0.54	2 X 0.54
	RUNCURRENT	A	0.6	1.3	1.3	2 X 1.3	2 X 1.3
380V	TOTAL INPUT	kW	4.8	7.0	9.6	14.4	19.3
	TOTAL RUNCURRENT	A	10.7	15.4	20.0	29.6	38.1
	POWER FACTOR	%	68	69	73	74	77
	START CURRENT	A	68	95	109	121	143
	COMPRESSOR INPUT	kW	3.32	5.16	7.42	2 X 5.35	2 X 7.60
	RUNCURRENT	A	7.56	10.81	15.00	2 X 10.8	2 X 14.32
	I/D FAN INPUT	kW	1.24	1.30	1.64	2.62	3.02
	RUNCURRENT	A	2.48	3.17	3.58	5.16	6.62
	O/D FAN INPUT	kW	0.24	0.54	0.54	2 X 0.54	2 X 0.54
	RUNCURRENT	A	0.66	1.42	1.42	2 X 1.42	2 X 1.42

Cooling Capacity (Nominal Air Flow):PR-5YC, PRH-5YA, PRH-5YA-L

OPERATION RANGE: PR-5YC, PRH-5YA-L, PRH-5YA (all outdoor DB ranges)

INDOOR DB˚C	INDOOR WB˚C	20.0 Q kW	20.0 SHCkW	20.0 SHF	20.0 T/I kW	25.0 Q kW	25.0 SHCkW	25.0 SHF	25.0 T/I kW	30.0 Q kW	30.0 SHCkW	30.0 SHF	30.0 T/I kW	35.0 Q kW	35.0 SHCkW	35.0 SHF	35.0 T/I kW	40.0 Q kW	40.0 SHCkW	40.0 SHF	40.0 T/I kW	46.0 Q kW	46.0 SHCkW	46.0 SHF	46.0 T/I kW
20	15	16.4	11.3	0.69	4.5	15.8	11.1	0.70	4.7	15.2	10.8	0.71	4.9	14.5	10.4	0.72	5.1	13.8	10.1	0.73	5.4	13.0	9.8	0.75	5.7
	16	16.9	10.3	0.61	4.6	16.3	10.1	0.62	4.8	15.6	9.8	0.63	5.0	15.0	9.6	0.64	5.2	14.2	9.2	0.65	5.5	13.3	8.9	0.67	5.8
	17	17.4	9.4	0.54	4.6	16.8	9.1	0.54	4.8	16.1	8.9	0.55	5.0	15.4	8.5	0.55	5.3	14.7	8.2	0.56	5.5	13.7	7.8	0.57	5.8
22	15	16.4	13.1	0.80	4.5	15.8	12.8	0.81	4.7	15.2	12.5	0.82	4.9	14.5	12.2	0.84	5.1	13.8	11.9	0.86	5.4	13.0	11.6	0.89	5.7
	16	16.9	12.2	0.72	4.6	16.3	11.9	0.73	4.8	15.6	11.5	0.74	5.0	15.0	11.4	0.76	5.2	14.2	11.1	0.78	5.5	13.3	10.6	0.80	5.8
	17	17.4	11.1	0.64	4.6	16.8	10.9	0.65	4.8	16.1	10.6	0.66	5.0	15.4	10.3	0.67	5.3	14.7	10.1	0.69	5.5	13.7	9.7	0.71	5.8
	18	17.9	10.2	0.57	4.7	17.3	10.0	0.58	4.9	16.6	9.8	0.59	5.1	15.9	9.4	0.59	5.3	15.1	9.1	0.60	5.6	14.2	8.8	0.62	5.9
	19	18.5	9.4	0.51	4.7	17.8	9.1	0.51	4.9	17.1	8.9	0.52	5.2	16.3	8.5	0.52	5.4	15.6	8.3	0.53	5.7	14.6	7.9	0.54	6.0
24	16	16.9	14.0	0.83	4.6	16.3	13.7	0.84	4.8	15.6	13.4	0.86	5.0	15.0	13.2	0.88	5.2	14.2	12.8	0.90	5.5	13.3	12.5	0.94	5.8
	17	17.4	13.1	0.75	4.6	16.8	12.8	0.76	4.8	16.1	12.4	0.77	5.0	15.4	12.2	0.79	5.3	14.7	11.9	0.81	5.5	13.7	11.5	0.84	5.8
	18	17.9	12.2	0.68	4.7	17.3	11.9	0.69	4.9	16.6	11.6	0.70	5.1	15.9	11.3	0.71	5.3	15.1	11.0	0.73	5.6	14.2	10.7	0.75	5.9
	19	18.5	11.1	0.60	4.7	17.8	10.9	0.61	4.9	17.1	10.6	0.62	5.2	16.3	10.3	0.63	5.4	15.6	10.0	0.64	5.7	14.6	9.6	0.66	6.0
	20	19.0	10.1	0.53	4.8	18.3	9.7	0.53	5.0	17.6	9.5	0.54	5.2	16.8	9.2	0.55	5.5	16.0	9.0	0.56	5.8	15.0	8.6	0.57	6.1
	21	19.5	9.2	0.47	4.8	18.8	8.8	0.47	5.1	18.0	8.6	0.48	5.3	17.3	8.5	0.49	5.6	16.4	8.2	0.50	5.9	15.4	7.9	0.51	6.2
26	18	17.9	14.0	0.78	4.7	17.3	13.7	0.79	4.9	16.6	13.4	0.81	5.1	15.9	13.2	0.83	5.3	15.1	12.8	0.85	5.6	14.2	12.5	0.88	5.9
	19	18.5	13.0	0.70	4.7	17.8	12.6	0.71	4.9	17.1	12.3	0.72	5.2	16.3	12.1	0.74	5.4	15.6	11.9	0.76	5.7	14.6	11.4	0.78	6.0
	20	19.0	12.0	0.63	4.8	18.3	11.7	0.64	5.0	17.6	11.4	0.65	5.2	16.8	11.1	0.66	5.5	16.0	10.7	0.67	5.8	15.0	10.4	0.69	6.1
	21	19.5	10.9	0.56	4.8	18.8	10.7	0.57	5.1	18.0	10.4	0.58	5.3	17.3	10.2	0.59	5.6	16.4	9.8	0.60	5.9	15.4	9.5	0.62	6.2
	22	20.1	10.1	0.50	4.9	19.3	9.7	0.50	5.1	18.5	9.4	0.51	5.4	17.7	9.2	0.52	5.7	16.9	9.0	0.53	6.0	15.9	8.6	0.54	6.3
	23	20.7	9.1	0.44	4.9	19.9	8.8	0.44	5.2	19.1	8.6	0.45	5.5	18.3	8.2	0.45	5.8	17.4	8.0	0.46	6.1	16.4	7.5	0.46	6.4
28	19	18.5	14.8	0.80	4.7	17.8	14.4	0.81	4.9	17.1	14.2	0.83	5.2	16.3	13.9	0.85	5.4	15.6	13.6	0.87	5.7	14.6	13.1	0.90	6.0
	20	19.0	13.7	0.72	4.8	18.3	13.4	0.73	5.0	17.6	13.2	0.75	5.2	16.8	12.8	0.76	5.5	16.0	12.5	0.78	5.8	15.0	12.2	0.81	6.1
	21	19.5	12.9	0.66	4.8	18.8	12.6	0.67	5.1	18.0	12.2	0.68	5.3	17.3	11.9	0.69	5.6	16.4	11.6	0.71	5.9	15.4	11.2	0.73	6.2
	22	20.1	11.9	0.59	4.9	19.3	11.6	0.60	5.1	18.5	11.3	0.61	5.4	17.7	11.0	0.62	5.7	16.9	10.6	0.63	6.0	15.9	10.3	0.65	6.3
	23	20.7	11.0	0.53	4.9	19.9	10.5	0.53	5.2	19.1	10.3	0.54	5.5	18.3	10.1	0.55	5.8	17.4	9.7	0.56	6.1	16.4	9.3	0.57	6.4
	24	21.4	10.1	0.47	5.0	20.6	9.7	0.47	5.3	19.8	9.5	0.48	5.6	18.9	9.1	0.48	5.9	18.0	8.8	0.49	6.2	16.8	8.4	0.50	6.5
30	20	19.0	15.6	0.82	4.8	18.3	15.2	0.83	5.0	17.6	15.0	0.85	5.2	16.8	14.6	0.87	5.5	16.0	14.2	0.89	5.8	15.0	14.0	0.93	6.1
	21	19.5	14.6	0.75	4.8	18.8	14.3	0.76	5.1	18.0	14.0	0.78	5.3	17.3	13.8	0.80	5.6	16.4	13.4	0.82	5.9	15.4	13.1	0.85	6.2
	22	20.1	13.7	0.68	4.9	19.3	13.3	0.69	5.1	18.5	13.0	0.70	5.4	17.7	12.7	0.72	5.7	16.9	12.5	0.74	6.0	15.9	12.1	0.76	6.3
	23	20.7	12.6	0.61	4.9	19.9	12.3	0.62	5.2	19.1	12.0	0.63	5.5	18.3	11.9	0.65	5.8	17.4	11.7	0.67	6.1	16.4	11.3	0.69	6.4
	24	21.4	11.8	0.55	5.0	20.6	11.5	0.56	5.3	19.8	11.3	0.57	5.6	18.9	11.0	0.58	5.9	18.0	10.6	0.59	6.2	16.8	10.2	0.61	6.5

Note1. * Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-5YC PRH-5YA PRH-5YA-L						
	AIR VOLUME	CMM	45	50	55	60
		L/S	750	830	920	1,000
COOLING	CAPACITY		0.975	0.988	1.0	1.013
	TOTAL INPUT		0.987	0.994	1.0	1.005

Cooling Capacity (Nominal Air Flow)
(Use for low ambient temp. parts):PR-5YC, PRH-5YA, PRH-5YA-L

OPERATION RANGE: PR-5YC ←→ (outdoor DB -5.0 to 15.0); PRH-5YA-L ←→ (outdoor DB -5.0 to 15.0); PRH-5YA ←→ (outdoor DB 0.0 to 15.0)

INDOOR DB˚C	INDOOR WB˚C	OUTDOOR DB˚C -5.0 Q kW	-5.0 SHCkW	-5.0 SHF	-5.0 T/I kW	0.0 Q kW	0.0 SHCkW	0.0 SHF	0.0 T/I kW	5.0 Q kW	5.0 SHCkW	5.0 SHF	5.0 T/I kW	10.0 Q kW	10.0 SHCkW	10.0 SHF	10.0 T/I kW	15.0 Q kW	15.0 SHCkW	15.0 SHF	15.0 T/I kW
20	15	18.0	12.1	0.67	4.0	17.9	12.0	0.67	4.0	17.7	12.0	0.68	4.1	17.4	11.8	0.68	4.2	16.9	11.7	0.69	4.3
	16	18.5	11.1	0.60	4.0	18.4	11.0	0.60	4.0	18.2	10.9	0.60	4.1	17.9	10.9	0.61	4.2	17.4	10.6	0.61	4.4
	17	19.1	10.1	0.53	4.1	19.0	10.1	0.53	4.1	18.7	9.9	0.53	4.2	18.3	9.7	0.53	4.3	17.9	9.7	0.54	4.4
22	15	18.0	13.9	0.77	4.0	17.9	13.8	0.77	4.0	17.7	13.8	0.78	4.1	17.4	13.6	0.78	4.2	16.9	13.4	0.79	4.3
	16	18.5	13.0	0.70	4.0	18.4	12.9	0.70	4.0	18.2	12.9	0.71	4.1	17.9	12.7	0.71	4.2	17.4	12.5	0.72	4.4
	17	19.1	12.0	0.63	4.1	19.0	12.0	0.63	4.1	18.7	11.8	0.63	4.2	18.3	11.7	0.64	4.3	17.9	11.5	0.64	4.4
	18	19.7	11.0	0.56	4.1	19.6	11.0	0.56	4.1	19.3	10.8	0.56	4.2	18.9	10.8	0.57	4.3	18.5	10.5	0.57	4.5
	19	20.3	10.2	0.50	4.2	20.2	10.1	0.50	4.2	19.9	10.0	0.50	4.3	19.5	9.8	0.50	4.4	19.1	9.7	0.51	4.5
24	16	18.5	14.8	0.80	4.0	18.4	14.7	0.80	4.0	18.2	14.7	0.81	4.1	17.9	14.5	0.81	4.2	17.4	14.3	0.82	4.4
	17	19.1	13.9	0.73	4.1	19.0	13.9	0.73	4.1	18.7	13.8	0.74	4.2	18.3	13.5	0.74	4.3	17.9	13.4	0.75	4.4
	18	19.7	13.0	0.66	4.1	19.6	12.9	0.66	4.1	19.3	12.9	0.67	4.2	18.9	12.7	0.67	4.3	18.5	12.6	0.68	4.5
	19	20.3	12.0	0.59	4.2	20.2	11.9	0.59	4.2	19.9	11.7	0.59	4.3	19.5	11.7	0.60	4.4	19.1	11.5	0.60	4.5
	20	20.9	10.9	0.52	4.2	20.8	10.8	0.52	4.2	20.5	10.7	0.52	4.3	20.1	10.7	0.53	4.4	19.6	10.4	0.53	4.6
	21	21.6	9.9	0.46	4.3	21.5	9.9	0.46	4.3	21.2	9.8	0.46	4.4	20.8	9.8	0.47	4.5	20.2	9.5	0.47	4.6
26	18	19.7	14.8	0.75	4.1	19.6	14.7	0.75	4.1	19.3	14.7	0.76	4.2	18.9	14.4	0.76	4.3	18.5	14.2	0.77	4.5
	19	20.3	13.8	0.68	4.2	20.2	13.7	0.68	4.2	19.9	13.7	0.69	4.3	19.5	13.5	0.69	4.4	19.1	13.4	0.70	4.5
	20	20.9	12.7	0.61	4.2	20.8	12.7	0.61	4.2	20.5	12.7	0.62	4.3	20.1	12.5	0.62	4.4	19.6	12.3	0.63	4.6
	21	21.6	11.9	0.55	4.3	21.5	11.8	0.55	4.3	21.2	11.7	0.55	4.4	20.8	11.6	0.56	4.5	20.2	11.3	0.56	4.6
	22	22.3	10.9	0.49	4.3	22.1	10.8	0.49	4.3	21.8	10.7	0.49	4.4	21.4	10.7	0.50	4.5	20.8	10.4	0.50	4.7
	23	23.0	9.9	0.43	4.4	22.8	9.8	0.43	4.4	22.5	9.7	0.43	4.5	22.0	9.7	0.44	4.6	21.4	9.4	0.44	4.7
28	19	20.3	15.6	0.77	4.2	20.2	15.6	0.77	4.2	19.9	15.5	0.78	4.3	19.5	15.2	0.78	4.4	19.1	15.1	0.79	4.5
	20	20.9	14.6	0.70	4.2	20.8	14.6	0.70	4.2	20.5	14.6	0.71	4.3	20.1	14.3	0.71	4.4	19.6	14.1	0.72	4.6
	21	21.6	13.6	0.63	4.3	21.5	13.5	0.63	4.3	21.2	13.6	0.64	4.4	20.8	13.3	0.64	4.5	20.2	13.1	0.65	4.6
	22	22.3	12.7	0.57	4.3	22.1	12.6	0.57	4.3	21.8	12.6	0.58	4.4	21.4	12.4	0.58	4.5	20.8	12.3	0.59	4.7
	23	23.0	11.7	0.51	4.4	22.8	11.6	0.51	4.4	22.5	11.5	0.51	4.5	22.0	11.4	0.52	4.6	21.4	11.1	0.52	4.7
	24	23.7	10.7	0.45	4.4	23.5	10.6	0.45	4.4	23.2	10.4	0.45	4.5	22.7	10.4	0.46	4.6	22.1	10.2	0.46	4.8
30	20	20.9	16.3	0.78	4.2	20.8	16.2	0.78	4.2	20.5	16.2	0.79	4.3	20.1	16.1	0.80	4.4	19.6	15.9	0.81	4.6
	21	21.6	15.3	0.71	4.3	21.5	15.3	0.71	4.3	21.2	15.3	0.72	4.4	20.8	15.2	0.73	4.5	20.2	14.9	0.74	4.6
	22	22.3	14.5	0.65	4.3	22.1	12.2	0.55	4.3	21.8	14.4	0.66	4.4	21.4	14.1	0.66	4.5	20.8	13.9	0.67	4.7
	23	23.0	13.6	0.59	4.4	22.8	13.5	0.59	4.4	22.5	13.5	0.60	4.5	22.0	13.2	0.60	4.6	21.4	13.1	0.61	4.7
	24	23.7	12.6	0.53	4.4	23.5	12.5	0.53	4.4	23.2	12.5	0.54	4.5	22.7	12.3	0.54	4.6	22.1	12.2	0.55	4.8

Note1. * Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-5YC PRH-5YA PRH-5YA-L	AIR VOLUME	CMM	45	50	55	60
		L/S	750	830	920	1,000
COOLING	CAPACITY		0.975	0.988	1.0	1.013
	TOTAL INPUT		0.987	0.994	1.0	1.005

Heating Capacity
(Nominal Air Flow):PRH-5YA, PRH-5YA-L

OPERATION RANGE: PRH-5YA-L ←→ (outdoor WB -10.0 to 0.0); PRH-5YA ←→ (outdoor WB 0.0)

INDOOR DB˚C	OUTDOOR WB˚C -10.0 Q kW	-10.0 T/I kW	-5.0 Q kW	-5.0 T/I kW	0.0 Q kW	0.0 T/I kW
15	9.5	3.7	11.2	3.8	13.1	4.0
16	9.5	3.7	11.2	3.8	13.0	4.0
17	9.4	3.7	11.1	3.8	12.9	4.1
18	9.4	3.7	11.1	3.8	12.9	4.1
19	9.3	3.7	11.0	3.9	12.8	4.2
20	9.3	3.7	10.9	3.9	12.7	4.2
21	9.2	3.7	10.9	3.9	12.7	4.2
22	9.2	3.8	10.8	4.0	12.6	4.3
23	9.1	3.8	10.7	4.0	12.5	4.3
24	9.1	3.8	10.7	4.0	12.5	4.3
25	9.0	3.8	10.6	4.1	12.4	4.4
26	8.9	3.8	10.5	4.1	12.3	4.4
27	8.9	3.8	10.5	4.1	12.3	4.4

OPERATION RANGE: PRH-5YA-L ←→; PRH-5YA ←→

INDOOR DB˚C	OUTDOOR WB˚C 5.0 Q kW	5.0 T/I kW	10.0 Q kW	10.0 T/I kW	15.0 Q kW	15.0 T/I kW
15	15.1	4.3	17.4	4.7	19.6	5.1
16	15.0	4.3	17.3	4.7	19.5	5.1
17	14.9	4.3	17.2	4.8	19.4	5.2
18	14.9	4.4	17.2	4.8	19.4	5.2
19	14.8	4.4	17.1	4.9	19.3	5.3
20	14.8	4.5	17.0	4.9	19.2	5.3
21	14.7	4.5	16.9	5.0	19.1	5.4
22	14.6	4.6	16.8	5.0	19.0	5.4
23	14.5	4.6	16.7	5.1	18.9	5.5
24	14.4	4.7	16.6	5.1	18.8	5.5
25	14.3	4.7	16.5	5.2	18.7	5.6
26	14.2	4.8	16.4	5.2	18.6	5.6
27	14.2	4.8	16.3	5.3	18.4	5.7

* Q : HEATING CAPACITY T/I : TOTAL INPUT

Factor for Various Air Flow

PRH-5YA PRH-5YA-L	AIR VOLUME	CMM	45	50	55	60
		L/S	750	830	920	1,000
HEATING	CAPACITY		0.975	0.988	1.0	1.008
	TOTAL INPUT		1.035	1.018	1.0	0.990

Cooling Capacity (Nominal Air Flow):PR-8YC, PRH-8YA, PRH-8YA-L

OPERATION RANGE: PR-8YC / PRH-8YA-L / PRH-8YA

INDOOR	INDOOR	OUTDOOR DB˚C																							
		20.0				25.0				30.0				35.0				40.0				46.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	22.8	16.2	0.71	6.9	22.3	15.8	0.71	7.2	21.7	15.6	0.72	7.5	21.0	15.3	0.73	7.8	20.3	15.0	0.74	8.2	19.4	14.7	0.76	8.7
	16	23.5	14.8	0.63	6.9	22.9	14.4	0.63	7.2	22.3	14.3	0.64	7.6	21.6	14.0	0.65	7.9	20.9	13.8	0.66	8.3	20.1	13.5	0.67	8.8
	17	24.2	13.3	0.55	7.0	23.6	13.0	0.55	7.3	23.0	12.7	0.55	7.7	22.3	12.5	0.56	8.1	21.6	12.1	0.56	8.5	20.7	11.8	0.57	9.0
22	15	22.8	19.2	0.84	6.9	22.3	19.0	0.85	7.2	21.7	18.7	0.86	7.5	21.0	18.3	0.87	7.8	20.3	17.9	0.88	8.2	19.4	17.5	0.90	8.7
	16	23.5	17.6	0.75	6.9	22.9	17.4	0.76	7.2	22.3	17.2	0.77	7.6	21.6	16.8	0.78	7.9	20.9	16.5	0.79	8.3	20.1	16.3	0.81	8.8
	17	24.2	16.2	0.67	7.0	23.6	15.8	0.67	7.3	23.0	15.6	0.68	7.7	22.3	15.4	0.69	8.1	21.6	15.1	0.70	8.5	20.7	14.7	0.71	9.0
	18	25.0	14.8	0.59	7.0	24.4	14.4	0.59	7.4	23.7	14.2	0.60	7.8	23.0	14.0	0.61	8.2	22.3	13.8	0.62	8.6	21.3	13.4	0.63	9.1
	19	25.7	13.4	0.52	7.1	25.2	13.1	0.52	7.5	24.5	13.0	0.53	7.9	23.8	12.6	0.53	8.3	23.0	12.4	0.54	8.7	22.0	11.9	0.54	9.2
24	16	23.5	20.4	0.87	6.9	22.9	20.2	0.88	7.2	22.3	19.8	0.89	7.6	21.6	19.7	0.91	7.9	20.9	19.4	0.93	8.3	20.1	19.1	0.95	8.8
	17	24.2	18.9	0.78	7.0	23.6	18.6	0.79	7.3	23.0	18.6	0.81	7.7	22.3	18.3	0.82	8.1	21.6	18.1	0.84	8.5	20.7	17.6	0.85	9.0
	18	25.0	17.5	0.70	7.0	24.4	17.3	0.71	7.4	23.7	17.1	0.72	7.8	23.0	16.8	0.73	8.2	22.3	16.7	0.75	8.6	21.3	16.2	0.76	9.1
	19	25.7	15.9	0.62	7.1	25.2	15.6	0.62	7.5	24.5	15.4	0.63	7.9	23.8	15.2	0.64	8.3	23.0	15.0	0.65	8.7	22.0	14.5	0.66	9.2
	20	26.5	14.6	0.55	7.2	25.9	14.2	0.55	7.6	25.2	14.1	0.56	8.0	24.5	13.7	0.56	8.4	23.7	13.5	0.57	8.9	22.7	13.2	0.58	9.4
	21	27.3	13.1	0.48	7.3	26.7	12.8	0.48	7.7	25.9	12.7	0.49	8.1	25.2	12.3	0.49	8.6	24.4	12.2	0.50	9.0	23.4	11.7	0.50	9.6
26	18	25.0	20.5	0.82	7.0	24.4	20.3	0.83	7.4	23.7	19.9	0.84	7.8	23.0	19.6	0.85	8.2	22.3	19.2	0.86	8.6	21.3	18.7	0.88	9.1
	19	25.7	18.8	0.73	7.1	25.2	18.6	0.74	7.5	24.5	18.4	0.75	7.9	23.8	18.1	0.76	8.3	23.0	17.7	0.77	8.7	22.0	17.4	0.79	9.2
	20	26.5	17.2	0.65	7.2	25.9	17.1	0.66	7.6	25.2	16.9	0.67	8.0	24.5	16.7	0.68	8.4	23.7	16.4	0.69	8.9	22.7	15.9	0.70	9.4
	21	27.3	15.8	0.58	7.3	26.7	15.8	0.59	7.7	25.9	15.5	0.60	8.1	25.2	15.4	0.61	8.6	24.4	15.1	0.62	9.0	23.4	14.5	0.62	9.6
	22	28.1	14.3	0.51	7.4	27.5	14.3	0.52	7.8	26.7	14.2	0.53	8.3	26.0	13.8	0.53	8.7	25.2	13.6	0.54	9.2	24.1	13.0	0.54	9.7
	23	29.0	13.1	0.45	7.5	28.4	12.8	0.45	7.9	27.6	12.7	0.46	8.4	26.8	12.3	0.46	8.8	26.0	12.2	0.47	9.3	24.9	11.7	0.47	9.9
28	19	25.7	21.6	0.84	7.1	25.2	21.4	0.85	7.5	24.5	21.1	0.86	7.9	23.8	20.7	0.87	8.3	23.0	20.5	0.89	8.7	22.0	20.0	0.91	9.2
	20	26.5	20.1	0.76	7.2	25.9	19.9	0.77	7.6	25.2	19.7	0.78	8.0	24.5	19.4	0.79	8.4	23.7	19.0	0.80	8.9	22.7	18.6	0.82	9.4
	21	27.3	18.6	0.68	7.3	26.7	18.4	0.69	7.7	25.9	18.1	0.70	8.1	25.2	17.9	0.71	8.6	24.4	17.6	0.72	9.0	23.4	17.3	0.74	9.6
	22	28.1	17.1	0.61	7.4	27.5	16.8	0.61	7.8	26.7	16.6	0.62	8.3	26.0	16.4	0.63	8.7	25.2	16.1	0.64	9.2	24.1	15.7	0.65	9.7
	23	29.0	15.7	0.54	7.5	28.4	15.3	0.54	7.9	27.6	15.2	0.55	8.4	26.8	15.0	0.56	8.8	26.0	14.6	0.56	9.3	24.9	14.2	0.57	9.9
	24	30.0	14.4	0.48	7.6	29.3	14.1	0.48	8.1	28.5	14.0	0.49	8.5	27.7	13.6	0.49	9.0	26.8	13.1	0.49	9.5	25.6	12.8	0.50	10.0
30	20	26.5	22.8	0.86	7.2	25.9	22.5	0.87	7.6	25.2	22.2	0.88	8.0	24.5	22.1	0.90	8.4	23.7	21.8	0.92	8.9	22.7	21.3	0.94	9.4
	21	27.3	21.6	0.79	7.3	26.7	21.4	0.80	7.7	25.9	21.0	0.81	8.1	25.2	20.7	0.82	8.6	24.4	20.5	0.84	9.0	23.4	20.1	0.86	9.6
	22	28.1	20.0	0.71	7.4	27.5	19.8	0.72	7.8	26.7	19.5	0.73	8.3	26.0	19.2	0.74	8.7	25.2	18.9	0.75	9.2	24.1	18.6	0.77	9.7
	23	29.0	18.6	0.64	7.5	28.4	18.2	0.64	7.9	27.6	17.9	0.65	8.4	26.8	17.7	0.66	8.8	26.0	17.4	0.67	9.3	24.9	17.2	0.69	9.9
	24	30.0	17.1	0.57	7.6	29.3	16.7	0.57	8.1	28.5	16.5	0.58	8.5	27.7	16.3	0.59	9.0	26.8	16.1	0.60	9.5	25.6	15.6	0.61	10.0

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-8YC PRH-8YA PRH-8YA-L	AIR VOLUME	CMM	60	70	80	90	95
		L/S	1,000	1,170	1,330	1,500	1,580
COOLING	CAPACITY		0.940	0.963	0.987	1.010	1.022
	TOTAL INPUT		0.978	0.987	0.996	1.005	1.010

Cooling Capacity (Nominal Air Flow)
(Use for low ambient temp. parts):PR-8YC, PRH-8YA, PRH-8YA-L

OPERATION RANGE: PR-8YC and PRH-8YA-L — outdoor DB -5.0 to 15.0; PRH-8YA — outdoor DB 0.0 to 15.0

INDOOR DB˚C	INDOOR WB˚C	-5.0 Q kW	-5.0 SHCkW	-5.0 SHF	-5.0 T/I kW	0.0 Q kW	0.0 SHCkW	0.0 SHF	0.0 T/I kW	5.0 Q kW	5.0 SHCkW	5.0 SHF	5.0 T/I kW	10.0 Q kW	10.0 SHCkW	10.0 SHF	10.0 T/I kW	15.0 Q kW	15.0 SHCkW	15.0 SHF	15.0 T/I kW
20	15	24.4	15.1	0.70	6.1	24.2	15.0	0.70	6.1	24.0	14.9	0.70	6.2	23.7	14.9	0.71	6.4	23.3	14.7	0.71	6.6
	16	25.2	13.6	0.62	6.1	25.0	13.5	0.62	6.1	24.8	13.4	0.62	6.2	24.4	13.4	0.63	6.4	24.0	13.2	0.63	6.6
	17	25.8	20.9	0.54	6.2	25.7	21.1	0.54	6.2	25.5	20.9	0.54	6.3	25.2	20.9	0.55	6.5	24.8	20.8	0.55	6.7
22	15	24.4	17.8	0.81	6.1	24.2	17.9	0.82	6.1	24.0	17.8	0.82	6.2	23.7	17.8	0.83	6.4	23.3	17.5	0.84	6.6
	16	25.2	16.4	0.73	6.1	25.0	16.5	0.74	6.1	24.8	16.4	0.74	6.2	24.4	16.3	0.75	6.4	24.0	16.1	0.75	6.6
	17	25.8	15.0	0.65	6.2	25.7	14.9	0.66	6.2	25.5	14.8	0.66	6.3	25.2	14.9	0.67	6.5	24.8	14.6	0.67	6.7
	18	26.5	13.5	0.58	6.2	26.4	13.5	0.58	6.2	26.2	13.4	0.58	6.3	25.9	13.2	0.59	6.5	25.5	13.3	0.59	6.7
	19	27.4	23.3	0.51	6.3	27.3	23.5	0.51	6.3	27.1	23.3	0.51	6.4	26.8	23.3	0.51	6.6	26.3	22.9	0.52	6.8
24	16	25.2	19.4	0.85	6.1	25.0	19.3	0.86	6.1	24.8	19.1	0.86	6.2	24.4	19.0	0.87	6.4	24.0	18.7	0.87	6.6
	17	25.8	17.8	0.77	6.2	25.7	17.7	0.77	6.2	25.5	17.6	0.77	6.3	25.2	17.6	0.78	6.5	24.8	17.4	0.78	6.7
	18	26.5	16.2	0.69	6.2	26.4	16.1	0.69	6.2	26.2	16.0	0.69	6.3	25.9	16.1	0.70	6.5	25.5	15.8	0.70	6.7
	19	27.4	14.8	0.61	6.3	27.3	14.7	0.61	6.3	27.1	14.6	0.61	6.4	26.8	14.5	0.62	6.6	26.3	14.5	0.62	6.8
	20	28.3	13.3	0.54	6.3	28.2	13.3	0.54	6.3	27.9	13.1	0.54	6.4	27.6	13.0	0.54	6.6	27.1	13.0	0.55	6.9
	21	29.2	23.4	0.47	6.4	29.0	23.2	0.47	6.4	28.7	23.2	0.47	6.5	28.4	23.0	0.47	6.7	27.9	22.9	0.48	7.0
26	18	26.5	18.8	0.80	6.2	26.4	18.7	0.80	6.2	26.2	18.9	0.81	6.3	25.9	18.6	0.81	6.5	25.5	18.6	0.82	6.7
	19	27.4	17.5	0.71	6.3	27.3	17.5	0.71	6.3	27.1	17.3	0.72	6.4	26.8	17.4	0.72	6.6	26.3	17.1	0.73	6.8
	20	28.3	16.1	0.64	6.3	28.2	16.1	0.64	6.3	27.9	15.9	0.64	6.4	27.6	16.0	0.65	6.6	27.1	15.7	0.65	6.9
	21	29.2	14.6	0.57	6.4	29.0	14.5	0.57	6.4	28.7	14.4	0.57	6.5	28.4	14.5	0.58	6.7	27.9	14.2	0.58	7.0
	22	30.1	13.2	0.50	6.5	29.9	13.2	0.50	6.5	29.6	13.0	0.50	6.6	29.2	12.8	0.51	6.8	28.7	12.9	0.51	7.1
	23	31.0	25.1	0.44	6.6	30.8	24.9	0.44	6.6	30.5	25.0	0.44	6.7	30.1	24.7	0.44	6.9	29.6	24.6	0.45	7.2
28	19	27.4	20.0	0.81	6.3	27.3	19.9	0.81	6.3	27.1	20.1	0.82	6.4	26.8	19.8	0.82	6.6	26.3	19.7	0.83	6.8
	20	28.3	18.7	0.73	6.3	28.2	18.6	0.73	6.3	27.9	18.7	0.74	6.4	27.6	18.5	0.74	6.6	27.1	18.4	0.75	6.9
	21	29.2	17.2	0.66	6.4	29.0	17.1	0.66	6.4	28.7	16.9	0.67	6.5	28.4	17.0	0.67	6.7	27.9	16.7	0.68	7.0
	22	30.1	16.0	0.59	6.5	29.9	15.8	0.59	6.5	29.6	15.7	0.59	6.6	29.2	15.5	0.60	6.8	28.7	15.5	0.60	7.1
	23	31.0	14.6	0.53	6.6	30.8	14.5	0.53	6.6	30.5	14.3	0.53	6.7	30.1	14.1	0.53	6.9	29.6	14.2	0.54	7.2
	24	32.0	26.6	0.47	6.7	31.8	26.4	0.47	6.7	31.5	26.5	0.47	6.8	31.1	26.1	0.47	7.0	30.6	26.0	0.48	7.3
30	20	28.3	21.5	0.83	6.3	28.2	21.4	0.83	6.3	27.9	21.5	0.84	6.4	27.6	21.3	0.84	6.6	27.1	21.1	0.85	6.9
	21	29.2	20.1	0.76	6.4	29.0	20.0	0.76	6.4	28.7	20.1	0.77	6.5	28.4	19.9	0.77	6.7	27.9	19.8	0.78	7.0
	22	30.1	18.7	0.69	6.5	29.9	18.5	0.69	6.5	29.6	18.6	0.70	6.6	29.2	18.4	0.70	6.8	28.7	18.4	0.71	7.1
	23	31.0	17.1	0.62	6.6	30.8	16.9	0.62	6.6	30.5	16.8	0.63	6.7	30.1	16.9	0.63	6.9	29.6	16.6	0.64	7.2
	24	32.0	0.0	0.55	6.7	31.8	0.0	0.55	6.7	31.5	0.0	0.55	6.8	31.1	0.0	0.56	7.0	30.6	0.0	0.56	7.3

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-8YC PRH-8YA PRH-8YA-L	AIR VOLUME	CMM	60	70	80	90	95
		L/S	1,000	1,170	1,330	1,500	1,580
COOLING	CAPACITY		0.940	0.963	0.987	1.010	1.022
	TOTAL INPUT		0.978	0.987	0.996	1.005	1.010

Heating Capacity
(Nominal Air Flow):PRH-8YA, PRH-8YA-L

OPERATION RANGE: PRH-8YA-L — outdoor WB -10 to 0.0; PRH-8YA — outdoor WB 0.0

INDOOR DB˚C	-10 Q kW	-10 T/I kW	-5.0 Q kW	-5.0 T/I kW	0.0 Q kW	0.0 T/I kW
15	15.4	5.3	17.6	5.6	20.1	6.1
16	15.3	5.3	17.5	5.6	20.0	6.1
17	15.2	5.3	17.4	5.6	19.9	6.1
18	15.1	5.3	17.3	5.6	19.9	6.2
19	15.1	5.3	17.3	5.7	19.8	6.2
20	15.0	5.4	17.2	5.7	19.7	6.3
21	14.9	5.4	17.1	5.7	19.6	6.3
22	14.8	5.4	17.0	5.8	19.5	6.3
23	14.7	5.4	17.0	5.8	19.5	6.4
24	14.7	5.5	16.9	5.8	19.4	6.4
25	14.6	5.5	16.8	5.9	19.3	6.5
26	14.5	5.5	16.7	5.9	19.2	6.5
27	14.5	5.5	16.7	5.9	19.2	6.5

OPERATION RANGE: PRH-8YA-L, PRH-8YA — outdoor WB 5.0 to 15.0

INDOOR DB˚C	5.0 Q kW	5.0 T/I kW	10.0 Q kW	10.0 T/I kW	15.0 Q kW	15.0 T/I kW
15	22.9	6.5	26.0	7.1	29.5	7.7
16	22.8	6.6	25.9	7.2	29.5	7.8
17	22.7	6.6	25.9	7.2	29.4	7.9
18	22.6	6.7	25.8	7.3	29.3	8.0
19	22.6	6.8	25.7	7.4	29.2	8.1
20	22.5	6.8	25.6	7.5	29.1	8.2
21	22.4	6.9	25.5	7.5	29.1	8.3
22	22.3	6.9	25.5	7.6	29.0	8.4
23	22.2	7.0	25.4	7.6	28.9	8.4
24	22.2	7.0	25.3	7.7	28.8	8.5
25	22.1	7.1	25.2	7.8	28.7	8.6
26	22.0	7.1	25.1	7.9	28.6	8.7
27	22.0	7.1	25.1	7.9	28.6	8.7

* Q : HEATING CAPACITY T/I : TOTAL INPUT

Factor for Various Air Flow

PRH-8YA PRH-8YA-L	AIR VOLUME	CMM	60	70	80	90	95
		L/S	1,000	1,170	1,330	1,500	1,580
HEATING	CAPACITY		0.970	0.981	0.992	1.003	1.008
	TOTAL INPUT		1.070	1.050	1.020	0.995	0.982

Cooling Capacity (Nominal Air Flow):PR-10YC, PRH-10YA, PRH-10YA-L

OPERATION RANGE: PR-10YC, PRH-10YA-L, PRH-10YA (all ranges span the full outdoor temperature range)

INDOOR	INDOOR	OUTDOOR DB˚C																							
		20.0				25.0				30.0				35.0				40.0				46.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	29.4	21.2	0.72	9.5	28.4	20.7	0.73	9.8	27.3	20.2	0.74	10.2	26.1	19.6	0.75	10.7	24.4	18.5	0.76	11.2	23.3	18.4	0.79	11.9
	16	30.4	19.5	0.64	9.6	29.4	18.8	0.64	9.9	28.2	18.3	0.65	10.4	27.0	17.8	0.66	10.8	25.7	17.2	0.67	11.4	24.1	16.6	0.69	12.1
	17	31.4	17.6	0.56	9.7	30.3	17.0	0.56	10.1	29.1	16.6	0.57	10.5	27.9	15.9	0.57	11.0	26.6	15.4	0.58	11.6	24.9	14.7	0.59	12.3
22	15	29.4	24.7	0.84	9.5	28.4	24.1	0.85	9.8	27.3	23.8	0.87	10.2	26.1	23.2	0.89	10.7	24.4	22.2	0.91	11.2	23.3	22.1	0.95	11.9
	16	30.4	23.1	0.76	9.6	29.4	22.6	0.77	9.9	28.2	22.0	0.78	10.4	27.0	21.6	0.80	10.8	25.7	21.1	0.82	11.4	24.1	20.5	0.85	12.1
	17	31.4	21.4	0.68	9.7	30.3	20.6	0.68	10.1	29.1	20.1	0.69	10.5	27.9	19.5	0.70	11.0	26.6	18.9	0.71	11.6	24.9	18.4	0.74	12.3
	18	32.4	19.4	0.60	9.8	31.3	18.8	0.60	10.2	30.0	18.3	0.61	10.7	28.7	17.8	0.62	11.2	27.4	17.3	0.63	11.8	25.7	16.7	0.65	12.5
	19	33.5	17.4	0.52	9.9	32.3	16.8	0.52	10.3	31.0	16.4	0.53	10.9	29.7	16.0	0.54	11.4	28.3	15.6	0.55	12.0	26.6	14.9	0.56	12.7
24	16	30.4	26.8	0.88	9.6	29.4	26.5	0.90	9.9	28.2	25.9	0.92	10.4	27.0	25.4	0.94	10.8	25.7	24.7	0.96	11.4	24.1	24.1	1.00	12.1
	17	31.4	25.1	0.80	9.7	30.3	24.5	0.81	10.1	29.1	23.9	0.82	10.5	27.9	23.2	0.83	11.0	26.6	22.6	0.85	11.6	24.9	22.2	0.89	12.3
	18	32.4	23.3	0.72	9.8	31.3	22.8	0.73	10.2	30.0	22.2	0.74	10.7	28.7	21.5	0.75	11.2	27.4	21.1	0.77	11.8	25.7	20.3	0.79	12.5
	19	33.5	21.1	0.63	9.9	32.3	20.7	0.64	10.3	31.0	20.2	0.65	10.9	29.7	19.6	0.66	11.4	28.3	19.0	0.67	12.0	26.6	18.4	0.69	12.7
	20	34.6	19.0	0.55	10.0	33.4	18.4	0.55	10.5	32.1	18.0	0.56	11.0	30.6	17.4	0.57	11.6	29.2	16.9	0.58	12.2	27.4	16.4	0.60	12.9
	21	35.7	17.1	0.48	10.1	34.4	16.5	0.48	10.6	33.0	16.2	0.49	11.2	31.6	15.8	0.50	11.8	30.1	15.4	0.51	12.4	28.3	14.7	0.52	13.1
26	18	32.4	26.9	0.83	9.8	31.3	26.3	0.84	10.2	30.0	25.8	0.86	10.7	28.7	25.3	0.88	11.2	27.4	24.7	0.90	11.8	25.7	23.9	0.93	12.5
	19	33.5	24.8	0.74	9.9	32.3	24.2	0.75	10.3	31.0	23.6	0.76	10.9	29.7	23.2	0.78	11.4	28.3	22.6	0.80	12.0	26.6	21.8	0.82	12.7
	20	34.6	22.8	0.66	10.0	33.4	22.4	0.67	10.5	32.1	21.8	0.68	11.0	30.6	21.1	0.69	11.6	29.2	20.4	0.70	12.2	27.4	20.0	0.73	12.9
	21	35.7	20.7	0.58	10.1	34.4	20.0	0.58	10.6	33.0	19.5	0.59	11.2	31.6	19.0	0.60	11.8	30.1	18.4	0.61	12.4	28.3	18.1	0.64	13.1
	22	36.8	18.8	0.51	10.3	35.4	18.1	0.51	10.8	34.0	17.7	0.52	11.4	32.5	17.2	0.53	12.0	31.0	16.7	0.54	12.6	29.1	16.3	0.56	13.3
	23	38.0	17.1	0.45	10.4	36.6	16.5	0.45	11.0	35.1	16.1	0.46	11.6	33.5	15.4	0.46	12.2	31.9	15.0	0.47	12.8	30.0	14.4	0.48	13.6
28	19	33.5	28.1	0.84	9.9	32.3	27.5	0.85	10.3	31.0	27.0	0.87	10.9	29.7	26.4	0.89	11.4	28.3	25.8	0.91	12.0	26.6	25.3	0.95	12.7
	20	34.6	26.3	0.76	10.0	33.4	25.7	0.77	10.5	32.1	25.4	0.79	11.0	30.6	24.8	0.81	11.6	29.2	24.2	0.83	12.2	27.4	23.6	0.86	12.9
	21	35.7	24.6	0.69	10.1	34.4	24.1	0.70	10.6	33.0	23.4	0.71	11.2	31.6	23.1	0.73	11.8	30.1	22.6	0.75	12.4	28.3	21.8	0.77	13.1
	22	36.8	22.4	0.61	10.3	35.4	21.9	0.62	10.8	34.0	21.4	0.63	11.4	32.5	21.1	0.65	12.0	31.0	20.5	0.66	12.6	29.1	19.8	0.68	13.3
	23	38.0	20.5	0.54	10.4	36.6	20.1	0.55	11.0	35.1	19.7	0.56	11.6	33.5	19.1	0.57	12.2	31.9	18.5	0.58	12.8	30.0	18.0	0.60	13.6
	24	39.2	18.8	0.48	10.6	37.7	18.1	0.48	11.2	36.1	17.7	0.49	11.8	34.5	17.3	0.50	12.4	32.9	16.8	0.51	13.1	30.8	16.0	0.52	13.9
30	20	34.6	30.1	0.87	10.0	33.4	29.7	0.89	10.5	32.1	29.2	0.91	11.0	30.6	28.5	0.93	11.6	29.2	28.0	0.96	12.2	27.4	27.1	0.99	12.9
	21	35.7	28.2	0.79	10.1	34.4	27.9	0.81	10.6	33.0	27.4	0.83	11.2	31.6	26.9	0.85	11.8	30.1	26.2	0.87	12.4	28.3	25.8	0.91	13.1
	22	36.8	26.1	0.71	10.3	35.4	25.5	0.72	10.8	34.0	25.2	0.74	11.4	32.5	24.7	0.76	12.0	31.0	24.2	0.78	12.6	29.1	23.3	0.80	13.3
	23	38.0	24.3	0.64	10.4	36.6	23.8	0.65	11.0	35.1	23.5	0.67	11.6	33.5	22.8	0.68	12.2	31.9	22.3	0.70	12.8	30.0	21.6	0.72	13.6
	24	39.2	22.3	0.57	10.6	37.7	21.9	0.58	11.2	36.1	21.3	0.59	11.8	34.5	20.7	0.60	12.4	32.9	20.1	0.61	13.1	30.8	19.7	0.64	13.9

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-10YC PRH-10YA PRH-10YA-L	AIR VOLUME	CMM	90	100	110	120
		L/S	1,500	1,660	1,830	2,000
COOLING	CAPACITY		0.987	1.0	1.033	1.066
	TOTAL INPUT		0.995	1.0	1.026	1.052

Cooling Capacity (Nominal Air Flow)
(Use for low ambient temp. parts):PR-10YC, PRH-10YA, PRH-10YA-L

OPERATION RANGE: PR-10YC and PRH-10YA-L: outdoor DB -5.0 to 15.0; PRH-10YA: outdoor DB 0.0 to 15.0

INDOOR	INDOOR	OUTDOOR DB˚C -5.0				0.0				5.0				10.0				15.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	32.7	22.6	0.69	8.6	32.3	22.3	0.69	8.6	31.8	22.3	0.70	8.7	31.2	22.2	0.71	8.9	30.4	21.9	0.72	9.1
	16	33.6	20.8	0.62	8.6	33.2	20.6	0.62	8.6	32.7	20.3	0.62	8.7	32.2	20.3	0.63	8.9	31.4	19.8	0.63	9.2
	17	34.7	18.7	0.54	8.7	34.3	18.5	0.54	8.7	33.8	18.3	0.54	8.8	33.2	18.3	0.55	9.0	32.4	17.8	0.55	9.3
22	15	32.7	26.5	0.81	8.6	32.3	26.5	0.82	8.6	31.8	26.1	0.82	8.7	31.2	25.9	0.83	8.9	30.4	25.2	0.83	9.1
	16	33.6	24.5	0.73	8.6	33.2	24.6	0.74	8.6	32.7	24.2	0.74	8.7	32.2	24.2	0.75	8.9	31.4	23.6	0.75	9.2
	17	34.7	22.6	0.65	8.7	34.3	22.6	0.66	8.7	33.8	22.3	0.66	8.8	33.2	22.2	0.67	9.0	32.4	21.7	0.67	9.3
	18	35.7	20.7	0.58	8.8	35.3	20.5	0.58	8.8	34.8	20.2	0.58	8.9	34.2	20.2	0.59	9.1	33.4	19.7	0.59	9.4
	19	36.8	18.8	0.51	8.9	36.5	18.6	0.51	8.9	36.0	18.4	0.51	9.0	35.3	18.0	0.51	9.2	34.5	17.9	0.52	9.5
24	16	33.6	28.6	0.85	8.6	33.2	28.6	0.86	8.6	32.7	28.1	0.86	8.7	32.2	28.0	0.87	8.9	31.4	27.6	0.88	9.2
	17	34.7	26.4	0.76	8.7	34.3	26.1	0.76	8.7	33.8	26.0	0.77	8.8	33.2	25.9	0.78	9.0	32.4	25.6	0.79	9.3
	18	35.7	24.6	0.69	8.8	35.3	24.4	0.69	8.8	34.8	24.4	0.70	8.9	34.2	23.9	0.70	9.1	33.4	23.7	0.71	9.4
	19	36.8	22.4	0.61	8.9	36.5	22.3	0.61	8.9	36.0	22.3	0.62	9.0	35.3	21.9	0.62	9.2	34.5	21.7	0.63	9.5
	20	38.1	20.6	0.54	9.0	37.8	20.4	0.54	9.0	37.3	20.1	0.54	9.1	36.6	19.8	0.54	9.3	35.7	19.6	0.55	9.6
	21	39.4	18.5	0.47	9.1	39.1	18.4	0.47	9.1	38.6	18.1	0.47	9.2	37.8	17.8	0.47	9.4	36.8	17.7	0.48	9.7
26	18	35.7	28.2	0.79	8.8	35.3	27.9	0.79	8.8	34.8	27.8	0.80	8.9	34.2	27.4	0.80	9.1	33.4	27.1	0.81	9.4
	19	36.8	26.1	0.71	8.9	36.5	25.9	0.71	8.9	36.0	25.9	0.72	9.0	35.3	25.4	0.72	9.2	34.5	25.2	0.73	9.5
	20	38.1	24.0	0.63	9.0	37.8	24.2	0.64	9.0	37.3	23.9	0.64	9.1	36.6	23.8	0.65	9.3	35.7	23.2	0.65	9.6
	21	39.4	22.1	0.56	9.1	39.1	22.3	0.57	9.1	38.6	22.0	0.57	9.2	37.8	21.9	0.58	9.4	36.8	21.3	0.58	9.7
	22	40.7	20.4	0.50	9.2	40.4	20.2	0.50	9.2	39.8	19.9	0.50	9.4	39.1	19.9	0.51	9.6	38.1	19.4	0.51	9.9
	23	42.1	18.5	0.44	9.3	41.8	18.4	0.44	9.3	41.2	18.1	0.44	9.5	40.4	17.8	0.44	9.7	39.3	17.7	0.45	10.0
28	19	36.8	29.8	0.81	8.9	36.5	29.6	0.81	8.9	36.0	29.5	0.82	9.0	35.3	28.9	0.82	9.2	34.5	28.6	0.83	9.5
	20	38.1	27.8	0.73	9.0	37.8	27.6	0.73	9.0	37.3	27.6	0.74	9.1	36.6	27.1	0.74	9.3	35.7	26.8	0.75	9.6
	21	39.4	26.0	0.66	9.1	39.1	25.8	0.66	9.1	38.6	25.9	0.67	9.2	37.8	25.3	0.67	9.4	36.8	25.0	0.68	9.7
	22	40.7	24.0	0.59	9.2	40.4	23.8	0.59	9.2	39.8	23.9	0.60	9.4	39.1	23.5	0.60	9.6	38.1	23.2	0.61	9.9
	23	42.1	21.9	0.52	9.3	41.8	21.7	0.52	9.3	41.2	21.8	0.53	9.5	40.4	21.4	0.53	9.7	39.3	21.2	0.54	10.0
	24	43.4	20.0	0.46	9.4	43.1	19.8	0.46	9.4	42.5	20.0	0.47	9.6	41.6	19.6	0.47	9.8	40.5	19.0	0.47	10.2
30	20	38.1	31.2	0.82	9.0	37.8	31.4	0.83	9.0	37.3	31.3	0.84	9.1	36.6	31.1	0.85	9.3	35.7	30.7	0.86	9.6
	21	39.4	29.6	0.75	9.1	39.1	29.3	0.75	9.1	38.6	29.3	0.76	9.2	37.8	29.1	0.77	9.4	36.8	28.7	0.78	9.7
	22	40.7	27.7	0.68	9.2	40.4	27.5	0.68	9.2	39.8	27.5	0.69	9.4	39.1	27.0	0.69	9.6	38.1	26.7	0.70	9.9
	23	42.1	25.7	0.61	9.3	41.8	25.5	0.61	9.3	41.2	25.5	0.62	9.5	40.4	25.0	0.62	9.7	39.3	24.8	0.63	10.0
	24	43.4	23.9	0.55	9.4	43.1	23.7	0.55	9.4	42.5	23.8	0.56	9.6	41.6	23.3	0.56	9.8	40.5	23.1	0.57	10.2

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-10YC PRH-10YA-L PRH-10YA	AIR VOLUME	CMM	90	100	110	120
		L/S	1,500	1,660	1,830	2,000
COOLING	CAPACITY		0.987	1.0	1.033	1.066
	TOTAL INPUT		0.995	1.0	1.026	1.052

Heating Capacity
(Nominal Air Flow):PRH-10YA, PRH-10YA-L

OPERATION RANGE: PRH-10YA-L: outdoor WB -10.0 to 0.0; PRH-10YA: outdoor WB 0.0

INDOOR	OUTDOOR WB˚C -10.0		-5.0		0.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	21.5	7.6	24.6	7.9	28.0	8.4
16	21.4	7.6	24.5	7.9	27.9	8.5
17	21.3	7.6	24.4	8.0	27.8	8.5
18	21.2	7.7	24.3	8.0	27.7	8.6
19	21.1	7.7	24.2	8.1	27.6	8.7
20	21.0	7.7	24.1	8.1	27.5	8.7
21	20.9	7.8	24.0	8.2	27.4	8.8
22	20.8	7.8	23.9	8.2	27.3	8.9
23	20.7	7.8	23.8	8.3	27.2	8.9
24	20.6	7.9	23.7	8.3	27.1	9.0
25	20.5	7.9	23.5	8.4	26.9	9.0
26	20.5	7.9	23.5	8.4	26.9	9.1
27	20.4	7.9	23.4	8.4	26.8	9.1

OPERATION RANGE: PRH-10YA-L, PRH-10YA

INDOOR	OUTDOOR WB˚C 5.0		10.0		15.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	31.9	9.0	36.5	9.8	41.1	10.5
16	31.8	9.1	36.4	9.9	40.9	10.6
17	31.7	9.2	36.2	10.0	40.7	10.7
18	31.6	9.2	36.1	10.0	40.6	10.8
19	31.4	9.3	35.9	10.1	40.4	10.9
20	31.3	9.4	35.8	10.2	40.2	11.0
21	31.2	9.5	35.7	10.3	40.1	11.1
22	31.1	9.5	35.5	10.4	39.9	11.2
23	30.9	9.6	35.3	10.5	39.7	11.3
24	30.8	9.7	35.2	10.6	39.6	11.4
25	30.7	9.8	35.1	10.7	39.4	11.5
26	30.6	9.8	35.0	10.7	39.3	11.6
27	30.5	9.9	34.8	10.8	39.1	11.7

* Q : HEATING CAPACITY T/I : TOTAL INPUT

Factor for Various Air Flow

PRH-10YA PRH-10YA-L	AIR VOLUME	CMM	90	100	110	120
		L/S	1,500	1,660	1,830	2,000
HEATING	CAPACITY		0.992	1.0	1.025	1.050
	TOTAL INPUT		1.016	1.0	0.971	0.942

Cooling Capacity (Nominal Air Flow):PR-15YC, PRH-15YA, PRH-15YA-L

OPERATION RANGE		PR-15YC / PRH-15YA-L / PRH-15YA																							
		OUTDOOR DB˚C																							
INDOOR	INDOOR	20.0				25.0				30.0				35.0				40.0				46.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	44.5	32.0	0.72	13.9	43.3	31.2	0.72	14.5	42.0	30.7	0.73	15.2	40.8	30.2	0.74	15.9	39.5	29.6	0.75	16.6	37.8	29.1	0.77	17.5
	16	45.7	29.2	0.64	14.0	44.5	28.5	0.64	14.7	43.2	28.1	0.65	15.4	42.0	27.7	0.66	16.1	40.7	27.3	0.67	16.9	39.0	26.5	0.68	17.8
	17	47.2	26.0	0.55	14.1	46.0	25.3	0.55	14.9	44.7	25.0	0.56	15.6	43.3	24.7	0.57	16.3	41.9	23.9	0.57	17.1	40.1	23.3	0.58	18.1
22	15	44.5	37.8	0.85	13.9	43.3	37.2	0.86	14.5	42.0	36.5	0.87	15.2	40.8	35.9	0.88	15.9	39.5	35.2	0.89	16.6	37.8	34.4	0.91	17.5
	16	45.7	34.7	0.76	14.0	44.5	34.3	0.77	14.7	43.2	33.7	0.78	15.4	42.0	33.2	0.79	16.1	40.7	32.6	0.80	16.9	39.0	32.0	0.82	17.8
	17	47.2	31.6	0.67	14.1	46.0	31.3	0.68	14.9	44.7	30.8	0.69	15.6	43.3	30.3	0.70	16.3	41.9	29.7	0.71	17.1	40.1	28.9	0.72	18.1
	18	48.9	28.9	0.59	14.3	47.6	28.1	0.59	15.0	46.2	27.7	0.60	15.8	44.8	27.3	0.61	16.6	43.2	26.8	0.62	17.4	41.2	26.0	0.63	18.4
	19	50.5	26.3	0.52	14.5	49.2	25.6	0.52	15.2	47.8	25.3	0.53	16.0	46.3	24.5	0.53	16.8	44.7	24.1	0.54	17.7	42.6	23.4	0.55	18.7
24	16	45.7	40.2	0.88	14.0	44.5	39.6	0.89	14.7	43.2	39.3	0.91	15.4	42.0	39.1	0.93	16.1	40.7	38.7	0.95	16.9	39.0	37.8	0.97	17.8
	17	47.2	37.3	0.79	14.1	46.0	36.8	0.80	14.9	44.7	36.2	0.81	15.6	43.3	35.9	0.83	16.3	41.9	35.6	0.85	17.1	40.1	34.9	0.87	18.1
	18	48.9	34.7	0.71	14.3	47.6	34.3	0.72	15.0	46.2	33.7	0.73	15.8	44.8	33.2	0.74	16.6	43.2	32.4	0.75	17.4	41.2	31.7	0.77	18.4
	19	50.5	31.8	0.63	14.5	49.2	31.0	0.63	15.2	47.8	30.6	0.64	16.0	46.3	30.1	0.65	16.8	44.7	29.5	0.66	17.7	42.6	28.5	0.67	18.7
	20	52.1	28.7	0.55	14.6	50.7	27.9	0.55	15.4	49.3	27.6	0.56	16.2	47.7	27.2	0.57	17.0	46.1	26.7	0.58	17.9	44.1	26.0	0.59	19.0
	21	53.9	26.4	0.49	14.8	52.3	25.6	0.49	15.6	50.8	25.4	0.50	16.4	49.2	24.6	0.50	17.2	47.6	24.3	0.51	18.2	45.5	23.2	0.51	19.3
26	18	48.9	40.6	0.83	14.3	47.6	40.0	0.84	15.0	46.2	39.7	0.86	15.8	44.8	39.0	0.87	16.6	43.2	38.4	0.89	17.4	41.2	37.1	0.90	18.4
	19	50.5	37.4	0.74	14.5	49.2	36.9	0.75	15.2	47.8	36.3	0.76	16.0	46.3	35.7	0.77	16.8	44.7	34.9	0.78	17.7	42.6	34.1	0.80	18.7
	20	52.1	34.4	0.66	14.6	50.7	33.5	0.66	15.4	49.3	33.0	0.67	16.2	47.7	32.4	0.68	17.0	46.1	31.8	0.69	17.9	44.1	31.3	0.71	19.0
	21	53.9	31.8	0.59	14.8	52.3	30.9	0.59	15.6	50.8	30.5	0.60	16.4	49.2	30.0	0.61	17.2	47.6	29.5	0.62	18.2	45.5	28.7	0.63	19.3
	22	55.7	29.0	0.52	15.0	54.0	28.1	0.52	15.8	52.4	27.8	0.53	16.6	50.7	26.9	0.53	17.5	49.0	26.5	0.54	18.4	47.0	25.9	0.55	19.6
	23	57.3	25.8	0.45	15.1	55.7	25.1	0.45	16.0	54.0	24.3	0.45	16.8	52.3	24.1	0.46	17.7	50.5	23.2	0.46	18.6	48.4	22.7	0.47	19.8
28	19	50.5	43.4	0.86	14.5	49.2	42.8	0.87	15.2	47.8	42.1	0.88	16.0	46.3	41.2	0.89	16.8	44.7	40.7	0.91	17.7	42.6	39.6	0.93	18.7
	20	52.1	40.1	0.77	14.6	50.7	39.5	0.78	15.4	49.3	38.9	0.79	16.2	47.7	38.2	0.80	17.0	46.1	37.3	0.81	17.9	44.1	36.6	0.83	19.0
	21	53.9	37.2	0.69	14.8	52.3	36.6	0.70	15.6	50.8	36.1	0.71	16.4	49.2	35.4	0.72	17.2	47.6	34.7	0.73	18.2	45.5	34.1	0.75	19.3
	22	55.7	34.5	0.62	15.0	54.0	34.0	0.63	15.8	52.4	33.5	0.64	16.6	50.7	32.4	0.64	17.5	49.0	31.9	0.65	18.4	47.0	31.0	0.66	19.6
	23	57.3	31.5	0.55	15.1	55.7	31.2	0.56	16.0	54.0	30.2	0.56	16.8	52.3	29.8	0.57	17.7	50.5	28.8	0.57	18.6	48.4	28.1	0.58	19.8
	24	59.0	28.3	0.48	15.3	57.4	28.1	0.49	16.2	55.6	27.2	0.49	17.1	53.9	27.0	0.50	18.0	52.0	26.0	0.50	18.9	49.8	25.4	0.51	20.0
30	20	52.1	45.8	0.88	14.6	50.7	45.1	0.89	15.4	49.3	44.4	0.90	16.2	47.7	43.9	0.92	17.0	46.1	43.3	0.94	17.9	44.1	41.9	0.95	19.0
	21	53.9	43.1	0.80	14.8	52.3	42.4	0.81	15.6	50.8	41.7	0.82	16.4	49.2	41.3	0.84	17.2	47.6	40.9	0.86	18.2	45.5	40.0	0.88	19.3
	22	55.7	40.7	0.73	15.0	54.0	39.4	0.73	15.8	52.4	38.8	0.74	16.6	50.7	38.0	0.75	17.5	49.0	37.2	0.76	18.4	47.0	36.7	0.78	19.6
	23	57.3	37.2	0.65	15.1	55.7	36.2	0.65	16.0	54.0	35.6	0.66	16.8	52.3	35.0	0.67	17.7	50.5	34.3	0.68	18.6	48.4	33.9	0.70	19.8
	24	59.0	33.6	0.57	15.3	57.4	32.7	0.57	16.2	55.6	32.2	0.58	17.1	53.9	31.8	0.59	18.0	52.0	31.2	0.60	18.9	49.8	30.9	0.62	20.0

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-15YC PRH-15YA PRH-15YA-L	AIR VOLUME	CMM	120	130	140	150	160	170	180
		L/S	2,000	2,170	2,330	2,500	2,670	2,830	3,000
COOLING	CAPACITY		0.944	0.955	0.966	0.978	0.981	1.0	1.011
	TOTAL INPUT		0.980	0.984	0.988	0.992	0.996	1.0	1.005

Cooling Capacity (Nominal Air Flow) (Use for low ambient temp. parts):PR-15YC, PRH-15YA, PRH-15YA-L

OPERATION RANGE		PR-15YC: -5.0 to 15.0; PRH-15YA-L: -5.0 to 15.0; PRH-15YA: 0.0 to 15.0																			
		OUTDOOR DB˚C																			
INDOOR	INDOOR	-5.0				0.0				5.0				10.0				15.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	47.6	33.8	0.71	12.4	47.2	33.5	0.71	12.5	46.8	33.2	0.71	12.7	46.2	33.3	0.72	13.0	45.4	32.7	0.72	13.4
	16	49.0	29.9	0.61	12.5	48.6	30.1	0.62	12.6	48.1	29.8	0.62	12.8	47.4	29.9	0.63	13.1	46.6	29.4	0.63	13.5
	17	50.9	27.0	0.53	12.6	50.5	26.8	0.53	12.7	49.9	26.4	0.53	12.9	49.2	27.1	0.55	13.2	48.3	26.6	0.55	13.6
22	15	47.6	39.5	0.83	12.4	47.2	39.2	0.83	12.5	46.8	38.8	0.83	12.7	46.2	38.8	0.84	13.0	45.4	38.1	0.84	13.4
	16	49.0	36.3	0.74	12.5	48.6	36.0	0.74	12.6	48.1	35.6	0.74	12.8	47.4	35.6	0.75	13.1	46.6	35.0	0.75	13.5
	17	50.9	33.6	0.66	12.6	50.5	33.3	0.66	12.7	49.9	32.9	0.66	12.9	49.2	33.0	0.67	13.2	48.3	32.4	0.67	13.6
	18	52.7	30.6	0.58	12.7	52.3	30.3	0.58	12.8	51.7	30.0	0.58	13.0	51.0	30.1	0.59	13.3	50.0	29.5	0.59	13.7
	19	54.7	27.9	0.51	12.8	54.2	27.6	0.51	12.9	53.6	27.3	0.51	13.1	52.8	27.5	0.52	13.4	51.7	26.9	0.52	13.8
24	16	49.0	42.1	0.86	12.5	48.6	42.3	0.87	12.6	48.1	41.8	0.87	12.8	47.4	41.7	0.88	13.1	46.6	41.0	0.88	13.5
	17	50.9	39.7	0.78	12.6	50.5	39.4	0.78	12.7	49.9	38.9	0.78	12.9	49.2	38.9	0.79	13.2	48.3	38.2	0.79	13.6
	18	52.7	36.9	0.70	12.7	52.3	36.6	0.70	12.8	51.7	36.2	0.70	13.0	51.0	36.2	0.71	13.3	50.0	35.5	0.71	13.7
	19	54.7	33.4	0.61	12.8	54.2	33.1	0.61	12.9	53.6	32.7	0.61	13.1	52.8	32.7	0.62	13.4	51.7	32.1	0.62	13.8
	20	56.7	30.6	0.54	12.9	56.2	30.3	0.54	13.0	55.5	30.0	0.54	13.2	54.6	30.0	0.55	13.6	53.5	29.4	0.55	14.0
	21	58.6	27.5	0.47	13.0	58.0	27.3	0.47	13.1	57.3	26.9	0.47	13.3	56.3	27.0	0.48	13.7	55.2	26.5	0.48	14.1
26	18	52.7	42.2	0.80	12.7	52.3	41.8	0.80	12.8	51.7	41.9	0.81	13.0	51.0	41.3	0.81	13.3	50.0	41.0	0.82	13.7
	19	54.7	38.8	0.71	12.8	54.2	38.5	0.71	12.9	53.6	38.6	0.72	13.1	52.8	38.0	0.72	13.4	51.7	37.7	0.73	13.8
	20	56.7	36.3	0.64	12.9	56.2	36.0	0.64	13.0	55.5	35.5	0.64	13.2	54.6	35.5	0.65	13.6	53.5	34.8	0.65	14.0
	21	58.6	33.4	0.57	13.0	58.0	33.1	0.57	13.1	57.3	32.7	0.57	13.3	56.3	32.7	0.58	13.7	55.2	32.0	0.58	14.1
	22	60.3	30.2	0.50	13.1	59.9	30.0	0.50	13.2	59.1	29.6	0.50	13.4	58.1	29.6	0.51	13.8	57.0	29.1	0.51	14.3
	23	62.4	27.5	0.44	13.2	61.8	27.2	0.44	13.3	61.0	26.8	0.44	13.5	60.0	27.0	0.45	13.9	58.8	26.5	0.45	14.4
28	19	54.7	44.9	0.82	12.8	54.2	44.4	0.82	12.9	53.6	44.5	0.83	13.1	52.8	44.4	0.84	13.4	51.7	43.9	0.85	13.8
	20	56.7	42.0	0.74	12.9	56.2	41.6	0.74	13.0	55.5	41.6	0.75	13.2	54.6	41.0	0.75	13.6	53.5	40.7	0.76	14.0
	21	58.6	39.3	0.67	13.0	58.0	38.9	0.67	13.1	57.3	39.0	0.68	13.3	56.3	38.3	0.68	13.7	55.2	38.1	0.69	14.1
	22	60.3	36.2	0.60	13.1	59.9	35.9	0.60	13.2	59.1	36.1	0.61	13.4	58.1	35.4	0.61	13.8	57.0	35.3	0.62	14.3
	23	62.4	33.1	0.53	13.2	61.8	32.8	0.53	13.3	61.0	32.9	0.54	13.5	60.0	32.4	0.54	13.9	58.8	32.3	0.55	14.4
	24	64.3	30.2	0.47	13.3	63.6	29.9	0.47	13.4	62.8	29.5	0.47	13.7	61.8	29.7	0.48	14.1	60.5	29.0	0.48	14.6
30	20	56.7	47.6	0.84	12.9	56.2	47.8	0.85	13.0	55.5	47.2	0.85	13.2	54.6	47.0	0.86	13.6	53.5	46.5	0.87	14.0
	21	58.6	44.5	0.76	13.0	58.0	44.7	0.77	13.1	57.3	44.1	0.77	13.3	56.3	43.9	0.78	13.7	55.2	43.6	0.79	14.1
	22	60.3	41.6	0.69	13.1	59.9	41.3	0.69	13.2	59.1	41.4	0.70	13.4	58.1	41.3	0.71	13.8	57.0	41.0	0.72	14.3
	23	62.4	38.7	0.62	13.2	61.8	38.3	0.62	13.3	61.0	37.8	0.62	13.5	60.0	37.8	0.63	13.9	58.8	37.6	0.64	14.4
	24	64.3	36.0	0.56	13.3	63.6	35.6	0.56	13.4	62.8	35.2	0.56	13.7	61.8	35.2	0.57	14.1	60.5	34.5	0.57	14.6

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-15YC PRH-15YA PRH-15YA-L	AIR VOLUME	CMM	120	130	140	150	160	170	180
		L/S	2,000	2,170	2,330	2,500	2,670	2,830	3,000
COOLING	CAPACITY		0.944	0.955	0.966	0.978	0.981	1.0	1.011
	TOTAL INPUT		0.980	0.984	0.988	0.992	0.996	1.0	1.005

Heating Capacity (Nominal Air Flow):PPRH-15YA, PRH-15YA-L

OPERATION RANGE	PRH-15YA-L: -10.0 to 0.0; PRH-15YA: 0.0					
	OUTDOOR WB˚C					
INDOOR	-10.0		-5.0		0.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	31.0	10.7	35.1	11.4	39.9	12.2
16	30.8	10.7	34.9	11.4	39.7	12.3
17	30.6	10.8	34.7	11.5	39.5	12.4
18	30.4	10.8	34.5	11.5	39.3	12.5
19	30.2	10.9	34.4	11.6	39.2	12.6
20	30.1	10.9	34.3	11.7	39.0	12.7
21	29.9	11.0	34.1	11.7	38.9	12.8
22	29.8	11.0	34.0	11.8	38.8	12.8
23	29.6	11.1	33.8	11.8	38.7	12.9
24	29.5	11.1	33.7	11.9	38.5	13.0
25	29.4	11.2	33.6	12.0	38.4	13.1
26	29.3	11.2	33.5	12.1	38.2	13.2
27	29.1	11.3	33.3	12.2	38.0	13.3

OPERATION RANGE	PRH-15YA-L, PRH-15YA: 5.0 to 15.0					
	OUTDOOR WB˚C					
INDOOR	5.0		10.0		15.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	45.4	13.2	51.6	14.3	58.8	15.5
16	45.2	13.3	51.4	14.4	58.6	15.7
17	45.0	13.4	51.2	14.6	58.3	15.8
18	44.8	13.5	51.0	14.7	58.1	16.0
19	44.6	13.6	50.8	14.8	57.8	16.2
20	44.5	13.8	50.6	15.0	57.6	16.3
21	44.3	13.9	50.5	15.1	57.4	16.5
22	44.2	14.0	50.3	15.2	57.2	16.6
23	44.1	14.1	50.2	15.3	57.0	16.8
24	43.9	14.2	50.0	15.5	56.7	16.9
25	43.8	14.3	49.8	15.6	56.5	17.1
26	43.6	14.4	49.6	15.7	56.2	17.3
27	43.4	14.5	49.4	15.9	56.0	17.4

* Q : HEATING CAPACITY T/I : TOTAL INPUT

Factor for Various Air Flow

PRH-15YA PRH-15YA-L	AIR VOLUME	CMM	120	130	140	150	160	170	180
		L/S	2,000	2,170	2,330	2,500	2,670	2,830	3,000
HEATING	CAPACITY		0.976	0.981	0.986	0.990	0.995	1.0	1.004
	TOTAL INPUT		1.070	1.056	1.042	1.028	1.014	1.0	0.991

Cooling Capacity (Nominal Air Flow):PR-20YC, PRH-20YA, PRH-20YA-L

OPERATION RANGE		PR-20YC / PRH-20YA-L / PRH-20YA																							
		OUTDOOR DB˚C																							
INDOOR	INDOOR	20.0				25.0				30.0				35.0				40.0				46.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	59.3	42.7	0.72	18.7	57.4	41.9	0.73	19.5	55.4	40.4	0.73	20.3	53.4	39.5	0.74	21.3	51.4	38.6	0.75	22.3	48.8	37.6	0.77	23.6
	16	61.3	39.2	0.64	19.0	59.5	38.1	0.64	19.8	57.6	37.4	0.65	20.7	55.5	36.1	0.65	21.7	53.2	35.1	0.66	22.7	50.4	34.3	0.68	24.0
	17	63.2	34.8	0.55	19.1	61.2	33.7	0.55	20.0	59.2	33.2	0.56	21.0	57.0	31.9	0.56	22.0	54.8	31.2	0.57	23.1	51.9	30.1	0.58	24.5
22	15	59.3	50.4	0.85	18.7	57.4	49.4	0.86	19.5	55.4	48.2	0.87	20.3	53.4	47.0	0.88	21.3	51.4	46.3	0.90	22.3	48.8	44.9	0.92	23.6
	16	61.3	46.6	0.76	19.0	59.5	45.8	0.77	19.8	57.6	44.9	0.78	20.7	55.5	43.8	0.79	21.7	53.2	43.1	0.81	22.7	50.4	41.8	0.83	24.0
	17	63.2	43.0	0.68	19.1	61.2	41.6	0.68	20.0	59.2	40.8	0.69	21.0	57.0	39.9	0.70	22.0	54.8	38.9	0.71	23.1	51.9	37.9	0.73	24.5
	18	65.0	39.0	0.60	19.3	63.0	37.8	0.60	20.3	60.9	37.1	0.61	21.3	58.7	35.8	0.61	22.4	56.4	35.0	0.62	23.5	53.4	33.6	0.63	24.9
	19	67.0	34.8	0.52	19.5	64.9	34.4	0.53	20.5	62.7	33.2	0.53	21.6	60.8	32.2	0.53	22.7	58.0	31.3	0.54	23.9	54.9	29.6	0.54	25.3
24	16	61.3	54.6	0.89	19.0	59.5	53.6	0.90	19.8	57.6	53.0	0.92	20.7	55.5	51.6	0.93	21.7	53.2	50.5	0.95	22.7	50.4	49.4	0.98	24.0
	17	63.2	50.6	0.80	19.1	61.2	49.6	0.81	20.0	59.2	48.5	0.82	21.0	57.0	47.3	0.83	22.0	54.8	46.6	0.85	23.1	51.9	45.7	0.88	24.5
	18	65.0	46.2	0.71	19.3	63.0	45.4	0.72	20.3	60.9	44.5	0.73	21.3	58.7	43.4	0.74	22.4	56.4	42.3	0.75	23.5	53.4	41.7	0.78	24.9
	19	67.0	42.2	0.63	19.5	64.9	41.5	0.64	20.5	62.7	40.8	0.65	21.6	60.8	40.1	0.66	22.7	58.0	38.9	0.67	23.9	54.9	37.3	0.68	25.3
	20	69.0	38.0	0.55	19.8	66.8	37.4	0.56	20.8	64.6	36.8	0.57	21.9	62.2	35.5	0.57	23.1	59.7	34.6	0.58	24.3	56.5	33.3	0.59	25.7
	21	71.2	34.2	0.48	20.0	68.9	33.8	0.49	21.2	66.6	32.6	0.49	22.3	64.0	32.0	0.50	23.5	61.4	31.3	0.51	24.7	58.2	30.3	0.52	26.2
26	18	65.0	54.0	0.83	19.3	63.0	52.9	0.84	20.3	60.9	51.8	0.85	21.3	58.7	51.1	0.87	22.4	56.4	50.2	0.89	23.5	53.4	48.6	0.91	24.9
	19	67.0	49.6	0.74	19.5	64.9	48.7	0.75	20.5	62.7	47.7	0.76	21.6	60.8	46.8	0.77	22.7	58.0	45.8	0.79	23.9	54.9	44.5	0.81	25.3
	20	69.0	45.5	0.66	19.8	66.8	44.8	0.67	20.8	64.6	43.9	0.68	21.9	62.2	42.9	0.69	23.1	59.7	41.8	0.70	24.3	56.5	40.7	0.72	25.7
	21	71.2	42.0	0.59	20.0	68.9	41.3	0.60	21.2	66.6	40.6	0.61	22.3	64.0	39.7	0.62	23.5	61.4	38.7	0.63	24.7	58.2	37.8	0.65	26.2
	22	73.4	38.2	0.52	20.3	71.0	37.6	0.53	21.5	68.6	37.0	0.54	22.7	66.0	35.6	0.54	23.9	63.3	34.8	0.55	25.2	59.8	33.5	0.56	26.8
	23	75.7	34.1	0.45	20.6	73.3	33.0	0.45	21.8	70.8	32.6	0.46	23.1	68.0	31.3	0.46	24.4	65.0	30.6	0.47	25.6	61.1	28.7	0.47	27.3
28	19	67.0	57.0	0.85	19.5	64.9	55.8	0.86	20.5	62.7	54.5	0.87	21.6	60.8	54.1	0.89	22.7	58.0	52.8	0.91	23.9	54.9	52.2	0.95	25.3
	20	69.0	53.1	0.77	19.8	66.8	52.1	0.78	20.8	64.6	51.0	0.79	21.9	62.2	50.4	0.81	23.1	59.7	49.6	0.83	24.3	56.5	48.0	0.85	25.7
	21	71.2	49.8	0.70	20.0	68.9	48.9	0.71	21.2	66.6	48.0	0.72	22.3	64.0	46.7	0.73	23.5	61.4	45.4	0.74	24.7	58.2	44.2	0.76	26.2
	22	73.4	45.5	0.62	20.3	71.0	44.7	0.63	21.5	68.6	43.9	0.64	22.7	66.0	42.9	0.65	23.9	63.3	41.8	0.66	25.2	59.8	40.7	0.68	26.8
	23	75.7	41.6	0.55	20.6	73.3	41.0	0.56	21.8	70.8	39.6	0.56	23.1	68.0	38.8	0.57	24.4	65.0	37.7	0.58	25.6	61.1	36.7	0.60	27.3
	24	78.0	37.4	0.48	20.9	75.6	37.0	0.49	22.2	72.8	35.7	0.49	23.5	69.9	35.0	0.50	24.8	66.7	34.0	0.51	26.2	62.5	32.5	0.52	27.8
30	20	69.0	60.0	0.87	19.8	66.8	58.8	0.88	20.8	64.6	58.1	0.90	21.9	62.2	57.2	0.92	23.1	59.7	56.1	0.94	24.3	56.5	55.4	0.98	25.7
	21	71.2	56.2	0.79	20.0	68.9	55.1	0.80	21.2	66.6	54.6	0.82	22.3	64.0	53.8	0.84	23.5	61.4	52.8	0.86	24.7	58.2	51.8	0.89	26.2
	22	73.4	52.1	0.71	20.3	71.0	51.1	0.72	21.5	68.6	50.1	0.73	22.7	66.0	49.5	0.75	23.9	63.3	48.7	0.77	25.2	59.8	47.8	0.80	26.8
	23	75.7	48.4	0.64	20.6	73.3	47.6	0.65	21.8	70.8	46.7	0.66	23.1	68.0	45.6	0.67	24.4	65.0	44.9	0.69	25.6	61.1	43.4	0.71	27.3
	24	78.0	44.5	0.57	20.9	75.6	43.8	0.58	22.2	72.8	43.0	0.59	23.5	69.9	41.9	0.60	24.8	66.7	41.4	0.62	26.2	62.5	40.0	0.64	27.8

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-20YC PRH-20YA PRH-20YA-L	AIR VOLUME	CMM	170	180	190	200	210	220
		L/S	2,830	3,000	3,160	3,330	3,500	3,670
COOLING	CAPACITY		0.980	0.990	1.0	1.008	1.017	1.025
	TOTAL INPUT		0.990	0.995	1.0	1.003	1.007	1.010

Cooling Capacity (Nominal Air Flow)
(Use for low ambient temp. parts):PR-20YC, PRH-20YA, PRH-20YA-L

OPERATION RANGE: PR-20YC and PRH-20YA-L: outdoor DB -5.0 to 15.0; PRH-20YA: outdoor DB 0.0 to 15.0

INDOOR	INDOOR	OUTDOOR DB˚C -5.0				0.0				5.0				10.0				15.0			
DB˚C	WB˚C	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW	Q kW	SHCkW	SHF	T/I kW
20	15	64.2	44.9	0.70	16.7	63.9	44.7	0.70	16.9	63.2	44.2	0.70	17.2	62.3	43.6	0.70	17.6	61.0	43.3	0.71	18.1
	16	66.2	41.0	0.62	16.9	65.9	40.9	0.62	17.1	65.2	40.4	0.62	17.4	64.2	40.4	0.63	17.8	62.8	39.6	0.63	18.3
	17	68.4	37.6	0.55	17.0	68.0	37.4	0.55	17.2	67.2	37.0	0.55	17.5	66.2	36.4	0.55	17.9	64.7	35.6	0.55	18.4
22	15	64.2	52.6	0.82	16.7	63.9	52.4	0.82	16.9	63.2	52.5	0.83	17.2	62.3	51.7	0.83	17.6	61.0	51.2	0.84	18.1
	16	66.2	49.0	0.74	16.9	65.9	48.8	0.74	17.1	65.2	48.9	0.75	17.4	64.2	48.2	0.75	17.8	62.8	47.7	0.76	18.3
	17	68.4	45.1	0.66	17.0	68.0	44.9	0.66	17.2	67.2	44.4	0.66	17.5	66.2	44.4	0.67	17.9	64.7	43.3	0.67	18.4
	18	70.6	40.9	0.58	17.2	70.0	40.6	0.58	17.3	69.3	40.2	0.58	17.6	68.2	40.2	0.59	18.0	66.6	39.3	0.59	18.6
	19	72.9	37.2	0.51	17.4	72.4	36.9	0.51	17.5	71.4	36.4	0.51	17.8	70.2	36.5	0.52	18.2	68.7	35.7	0.52	18.8
24	16	66.2	56.3	0.85	16.9	65.9	56.0	0.85	17.1	65.2	56.1	0.86	17.4	64.2	55.9	0.87	17.8	62.8	55.3	0.88	18.3
	17	68.4	52.7	0.77	17.0	68.0	52.4	0.77	17.2	67.2	52.4	0.78	17.5	66.2	51.6	0.78	17.9	64.7	51.1	0.79	18.4
	18	70.6	48.7	0.69	17.2	70.0	48.3	0.69	17.3	69.3	48.5	0.70	17.6	68.2	47.7	0.70	18.0	66.6	47.3	0.71	18.6
	19	72.9	44.5	0.61	17.4	72.4	44.2	0.61	17.5	71.4	44.3	0.62	17.8	70.2	43.5	0.62	18.2	68.7	43.3	0.63	18.8
	20	75.3	40.7	0.54	17.5	74.8	40.4	0.54	17.6	73.7	39.8	0.54	17.9	72.6	39.9	0.55	18.4	71.0	39.1	0.55	19.0
	21	77.8	36.6	0.47	17.7	77.2	36.3	0.47	17.8	76.0	35.7	0.47	18.1	75.0	36.0	0.48	18.6	73.3	35.2	0.48	19.2
26	18	70.6	55.8	0.79	17.2	70.0	55.3	0.79	17.3	69.3	55.4	0.80	17.6	68.2	55.2	0.81	18.0	66.6	54.6	0.82	18.6
	19	72.9	51.8	0.71	17.4	72.4	51.4	0.71	17.5	71.4	51.4	0.72	17.8	70.2	50.5	0.72	18.2	68.7	50.2	0.73	18.8
	20	75.3	48.2	0.64	17.5	74.8	47.9	0.64	17.6	73.7	47.9	0.65	17.9	72.6	47.2	0.65	18.4	71.0	46.9	0.66	19.0
	21	77.8	44.3	0.57	17.7	77.2	44.0	0.57	17.8	76.0	44.1	0.58	18.1	75.0	43.5	0.58	18.6	73.3	43.2	0.59	19.2
	22	80.4	40.2	0.50	17.8	79.6	39.8	0.50	17.9	78.8	40.2	0.51	18.3	77.4	39.5	0.51	18.8	75.6	39.3	0.52	19.5
	23	83.0	36.5	0.44	18.0	82.4	36.3	0.44	18.1	81.2	35.7	0.44	18.5	79.8	35.9	0.45	19.0	78.0	35.1	0.45	19.7
28	19	72.9	59.0	0.81	17.4	72.4	58.6	0.81	17.5	71.4	58.5	0.82	17.8	70.2	58.3	0.83	18.2	68.7	57.7	0.84	18.8
	20	75.3	55.0	0.73	17.5	74.8	54.6	0.73	17.6	73.7	54.5	0.74	17.9	72.6	54.5	0.75	18.4	71.0	54.0	0.76	19.0
	21	77.8	51.3	0.66	17.7	77.2	51.0	0.66	17.8	76.0	50.9	0.67	18.1	75.0	51.0	0.68	18.6	73.3	50.6	0.69	19.2
	22	80.4	47.4	0.59	17.8	79.6	47.8	0.60	17.9	78.8	48.1	0.61	18.3	77.4	47.2	0.61	18.8	75.6	46.9	0.62	19.5
	23	83.0	44.0	0.53	18.0	82.4	43.7	0.53	18.1	81.2	43.8	0.54	18.5	79.8	43.1	0.54	19.0	78.0	42.9	0.55	19.7
	24	85.6	40.2	0.47	18.1	84.8	39.9	0.47	18.3	83.6	39.3	0.47	18.7	82.2	39.5	0.48	19.2	80.4	38.6	0.48	20.0
30	20	75.3	62.5	0.83	17.5	74.8	62.1	0.83	17.6	73.7	61.9	0.84	17.9	72.6	61.7	0.85	18.4	71.0	61.1	0.86	19.0
	21	77.8	59.1	0.76	17.7	77.2	58.7	0.76	17.8	76.0	58.5	0.77	18.1	75.0	57.8	0.77	18.6	73.3	57.2	0.78	19.2
	22	80.4	55.5	0.69	17.8	79.6	54.9	0.69	17.9	78.8	55.2	0.70	18.3	77.4	54.2	0.70	18.8	75.6	53.7	0.71	19.5
	23	83.0	51.5	0.62	18.0	82.4	51.1	0.62	18.1	81.2	51.2	0.63	18.5	79.8	50.3	0.63	19.0	78.0	49.9	0.64	19.7
	24	85.6	47.1	0.55	18.1	84.8	47.5	0.56	18.3	83.6	46.8	0.56	18.7	82.2	46.9	0.57	19.2	80.4	45.8	0.57	20.0

Note1.* Q :COOLING CAPACITY SHC:SENSIBLE HEAT CAPACITY T/I:TOTAL INPUT

Factor for Various Air Flow

PR-20YC PRH-20YA PRH-20YA-L	AIR VOLUME	CMM	170	180	190	200	210	220
		L/S	2,830	3,000	3,160	3,330	3,500	3,670
COOLING	CAPACITY		0.980	0.990	1.0	1.008	1.017	1.025
	TOTAL INPUT		0.990	0.995	1.0	1.003	1.007	1.010

Heating Capacity
(Nominal Air Flow):PRH-20YA, PRH-20YA-L

OPERATION RANGE: PRH-20YA-L: outdoor WB -10.0 to 0.0; PRH-20YA: outdoor WB 0.0

INDOOR	OUTDOOR WB˚C -10.0		-5.0		0.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	41.2	14.3	46.9	15.4	53.5	16.7
16	40.9	14.3	46.7	15.5	53.3	16.8
17	40.6	14.4	46.5	15.6	53.1	16.9
18	40.4	14.5	46.3	15.7	52.8	17.0
19	40.2	14.6	46.1	15.8	52.6	17.1
20	40.0	14.7	45.9	15.9	52.4	17.2
21	39.8	14.7	45.7	16.0	52.2	17.3
22	39.6	14.8	45.5	16.1	52.0	17.4
23	39.4	14.9	45.3	16.2	51.8	17.6
24	39.2	15.0	45.1	16.3	51.6	17.7
25	39.1	15.0	44.9	16.3	51.4	17.8
26	38.9	15.1	44.7	16.4	51.2	17.9
27	38.6	15.2	44.4	16.5	50.9	18.0

OPERATION RANGE: PRH-20YA-L, PRH-20YA: outdoor WB 5.0 to 15.0

INDOOR	OUTDOOR WB˚C 5.0		10.0		15.0	
DB˚C	Q kW	T/I kW	Q kW	T/I kW	Q kW	T/I kW
15	60.9	18.1	69.4	19.8	78.8	21.7
16	60.6	18.3	69.1	20.0	78.5	21.9
17	60.4	18.4	68.8	20.2	78.2	22.1
18	60.2	18.6	68.5	20.3	77.9	22.3
19	60.0	18.7	68.3	20.5	77.6	22.5
20	59.8	18.8	68.0	20.6	77.3	22.7
21	59.6	19.0	67.8	20.8	77.0	22.9
22	59.4	19.1	67.6	21.0	76.6	23.1
23	59.2	19.2	67.3	21.2	76.3	23.3
24	59.0	19.4	67.0	21.4	76.0	23.6
25	58.7	19.5	66.7	21.5	75.6	23.8
26	58.4	19.7	66.4	21.7	75.3	24.1
27	58.1	19.8	66.1	21.9	75.0	24.3

* Q : HEATING CAPACITY T/I : TOTAL INPUT

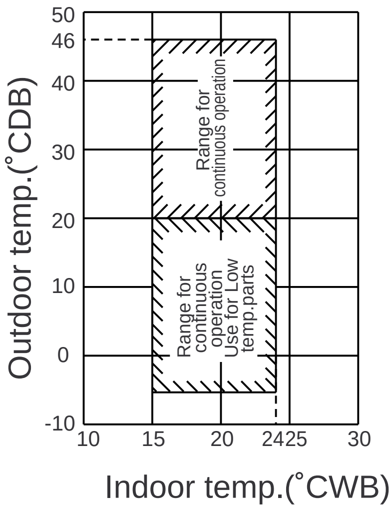
Factor for Various Air Flow

PRH-20YA PRH-20YA-L	AIR VOLUME	CMM	170	180	190	200	210	220
		L/S	2,830	3,000	3,160	3,330	3,500	3,670
HEATING	CAPACITY		0.990	0.995	1.0	1.003	1.007	1.010
	TOTAL INPUT		1.025	1.013	1.0	0.993	0.987	0.980

Operation range

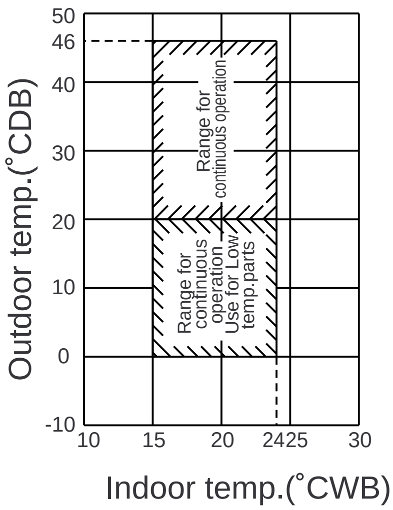
PR-YC

Cooling

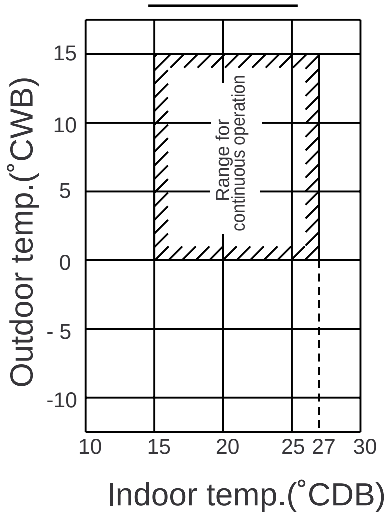


PRH-YA

Cooling

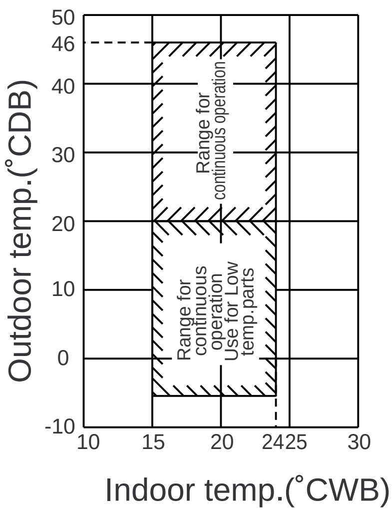


Heating

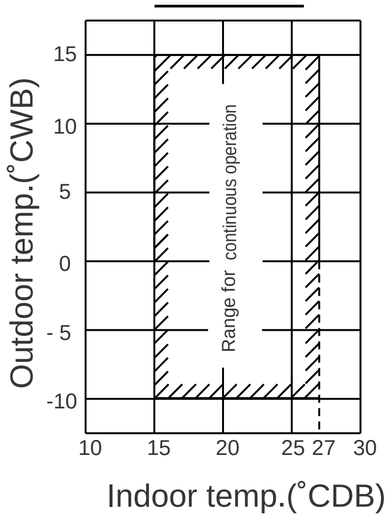


PRH-YA-L

Cooling

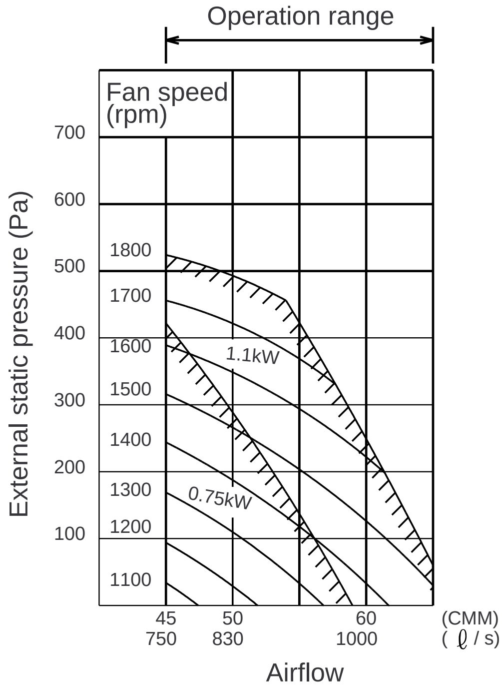


Heating



FAN PERFORMANCE

PR-5YC
PRH-5YA
PRH-5YA-L

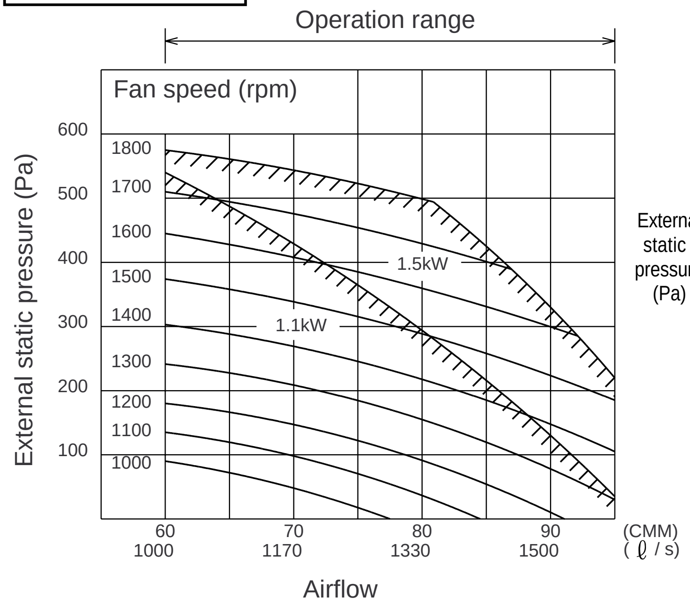


Airflow

External static pressure (Pa)			45	50	55	60
	CMM		45	50	55	60
	L/S		750	830	920	1000
100	FAN SPEED	rpm	1230	1320	1450	1450
	PULLEYSIZE	mm	139.7	127	139.7	139.7
	(MOTOR SIDE)	inch	5.5	5	5.5	5.5
	PULLEYSIZE	mm	165.1	139.7	139.7	139.7
	(FAN SIDE)	inch	6.5	5.5	5.5	5.5
	BELT SIZE	inch	B39	B36	B37	B39
	MOTOR	kw	0.75	0.75	0.75	1.1
200	FAN SPEED	rpm	1330	1450	1580	1600
	PULLEYSIZE	mm	139.7	139.7	152.4	139.7
	(MOTOR SIDE)	inch	5.5	5.5	6	5.5
	PULLEYSIZE	mm	152.4	139.7	139.7	127
	(FAN SIDE)	inch	6	5.5	5.5	5
	BELT SIZE	inch	B38	B37	B40	B39
	MOTOR	kw	0.75	0.75	1.1	1.1
300	FAN SPEED	rpm	1450	1580	1610	-
	PULLEYSIZE	mm	139.7	152.4	127	-
	(MOTOR SIDE)	inch	5.5	6	5	-
	PULLEYSIZE	mm	139.7	139.7	114.3	-
	(FAN SIDE)	inch	5.5	5.5	4.5	-
	BELT SIZE	inch	B37	B40	B37	-
	MOTOR	kw	0.75	1.1	1.1	-
400	FAN SPEED	rpm	1610	-	-	-
	PULLEYSIZE	mm	127	-	-	-
	(MOTOR SIDE)	inch	5.0	-	-	-
	PULLEYSIZE	mm	114.3	-	-	-
	(FAN SIDE)	inch	4.5	-	-	-
	BELT SIZE	inch	B35	-	-	-
	MOTOR	kw	0.75	-	-	-

※ [shaded] Std.

PR-8YC
PRH-8YA
PRH-8YA-L

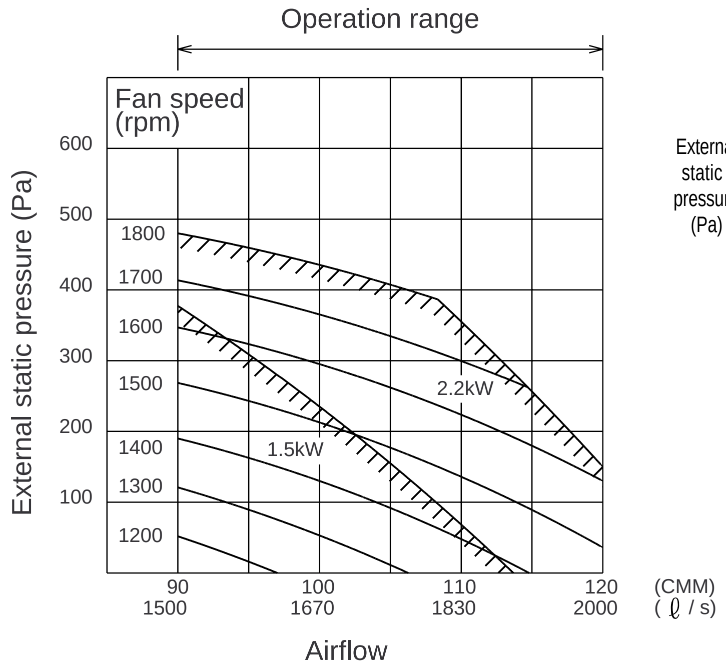


Airflow

External static pressure (Pa)			60	70	80	90	95
	CMM		60	70	80	90	95
	L/S		1000	1170	1330	1500	1580
100	FAN SPEED	rpm	1000	1090	1310	1310	1450
	PULLEYSIZE	mm	114.3	114.3	114.3	114.3	127
	(MOTOR SIDE)	inch	4.5	4.5	4.5	4.5	5.0
	PULLEYSIZE	mm	165.1	152.4	127	127	127
	(FAN SIDE)	inch	6.5	6.0	5.0	5.0	5.0
	BELT SIZE	inch	B39	B39	B37	B37	B35
	MOTOR	kw	1.1	1.1	1.1	1.5	1.5
200	FAN SPEED	rpm	1230	1320	1450	1450	1580
	PULLEYSIZE	mm	139.7	127	127	127	152.4
	(MOTOR SIDE)	inch	5.5	5.0	5.0	5.0	6.0
	PULLEYSIZE	mm	165.1	139.7	127	127	139.7
	(FAN SIDE)	inch	6.5	5.5	5.0	5.0	5.5
	BELT SIZE	inch	B41	B39	B38	B35	B37
	MOTOR	kw	1.1	1.1	1.1	1.5	1.5
300	FAN SPEED	rpm	1450	1450	1580	1600	-
	PULLEYSIZE	mm	127	127	152.4	139.7	-
	(MOTOR SIDE)	inch	5.0	5.0	6	5.5	-
	PULLEYSIZE	mm	127	127	139.7	127	-
	(FAN SIDE)	inch	5.0	5.0	5.5	5.0	-
	BELT SIZE	inch	B38	B38	B37	B35	-
	MOTOR	kw	1.1	1.1	1.5	1.5	-
400	FAN SPEED	rpm	1580	1600	1690	-	-
	PULLEYSIZE	mm	152.4	139.7	177.8	-	-
	(MOTOR SIDE)	inch	6.0	5.5	7.0	-	-
	PULLEYSIZE	mm	139.7	127	152.4	-	-
	(FAN SIDE)	inch	5.5	5.0	6.0	-	-
	BELT SIZE	inch	B40	B39	B39	-	-
	MOTOR	kw	1.1	1.1	1.5	-	-
500	FAN SPEED	rpm	1740	1740	-	-	-
	PULLEYSIZE	mm	152.4	152.4	-	-	-
	(MOTOR SIDE)	inch	6.0	6.0	-	-	-
	PULLEYSIZE	mm	127	127	-	-	-
	(FAN SIDE)	inch	5.0	5.0	-	-	-
	BELT SIZE	inch	B39	B36	-	-	-
	MOTOR	kw	1.1	1.5	-	-	-

※ [shaded] Std.

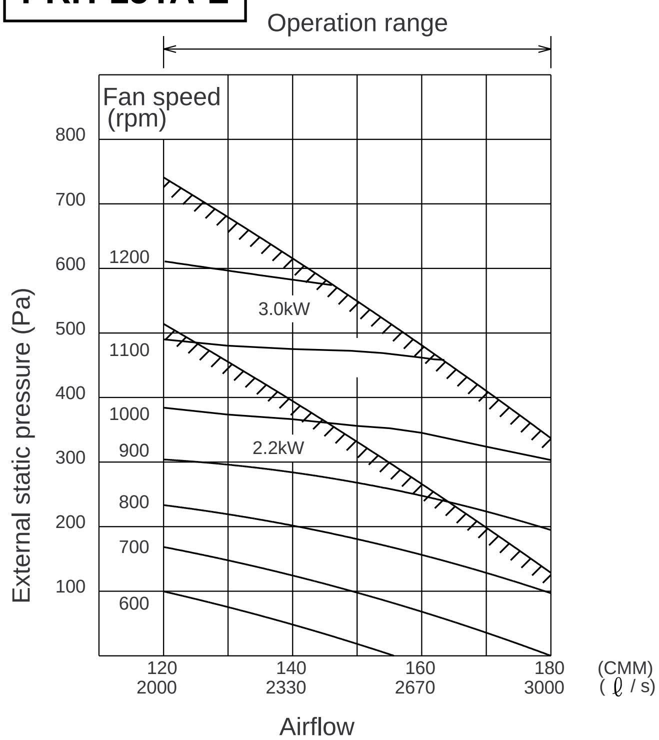
PR-10YC
PRH-10YA
PRH-10YA-L



External static pressure (Pa)	Airflow					
	CMM		90	100	110	120
	L/S		1500	1660	1830	2000
100	FAN SPEED	rpm	1320	1450	1450	1550
	PULLEYSIZE (MOTOR SIDE)	mm	127	139.7	139.7	190.5
		inch	5.0	5.5	5.5	7.5
	PULLEYSIZE (FAN SIDE)	mm	139.7	139.7	139.7	177.8
		inch	5.5	5.5	5.5	7.0
	BELT SIZE	inch	B35	B36	B33	B39
	MOTOR	kw	1.5	1.5	2.2	2.2
200	FAN SPEED	rpm	1450	1450	1600	-
	PULLEYSIZE (MOTOR SIDE)	mm	139.7	139.7	139.7	-
		inch	5.5	5.5	5.5	-
	PULLEYSIZE (FAN SIDE)	mm	139.7	139.7	127	-
		inch	5.5	5.5	5.0	-
	BELT SIZE	inch	B36	B36	B33	-
	MOTOR	kw	1.5	1.5	2.2	-
300	FAN SPEED	rpm	1580	1600	1740	-
	PULLEYSIZE (MOTOR SIDE)	mm	152.4	139.7	152.4	-
		inch	6	5.5	6.0	-
	PULLEYSIZE (FAN SIDE)	mm	139.7	127	127	-
		inch	5.5	5.0	5.0	-
	BELT SIZE	inch	B37	B33	B34	-
	MOTOR	kw	1.5	2.2	2.2	-
400	FAN SPEED	rpm	1710	1740	-	-
	PULLEYSIZE (MOTOR SIDE)	mm	165.1	152.4	-	-
		inch	6.5	6.0	-	-
	PULLEYSIZE (FAN SIDE)	mm	139.7	127	-	-
		inch	5.5	5.0	-	-
	BELT SIZE	inch	B35	B34	-	-
	MOTOR	kw	2.2	2.2	-	-

※ [ ] Std.

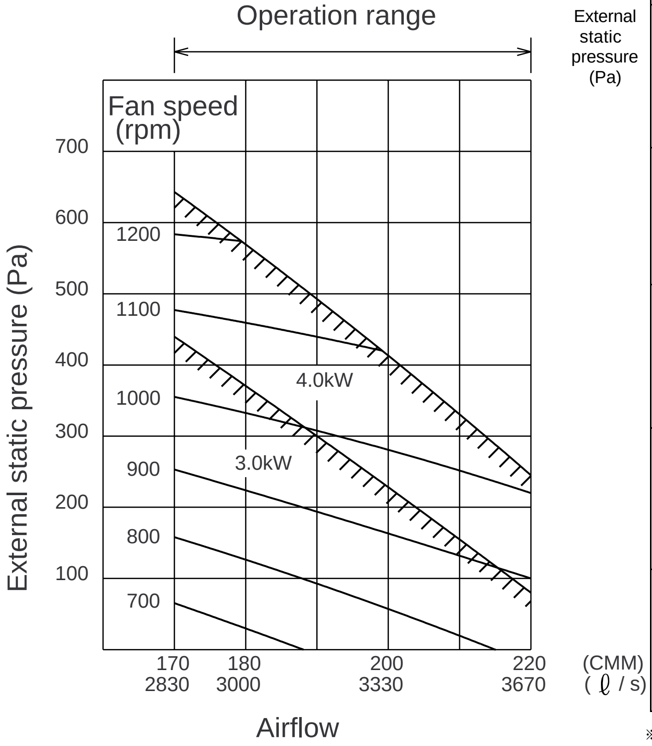
PR-15YC
PRH-15YA
PRH-15YA-L



External static pressure (Pa)	Airflow								
	CMM		120	130	140	150	160	170	180
	L/S		2000	2170	2330	2500	2670	2830	3000
100	FAN SPEED	rpm	640	640	690	730	730	760	810
	PULLEY SIZE (MOTOR SIDE)	mm	101.6	101.6	114.3	127	127	127	127
		inch	4.0	4.0	4.5	5.0	5.0	5.0	5.0
	PULLEYSIZE (FAN SIDE)	mm	228.6	228.6	241.3	254	254	241.3	228.6
		inch	9.0	9.0	9.5	10.0	10.0	9.5	9.0
	BELT SIZE	inch	B37×2	B37×2	B39×2	B41×2	B41×2	B40×2	B39×2
	MOTOR	kw	2.2	2.2	2.2	2.2	2.2	2.2	2.2
200	FAN SPEED	rpm	760	810	810	850	890	890	910
	PULLEYSIZE (MOTOR SIDE)	mm	127	127	127	127	139.7	139.7	127
		inch	5.0	5.0	5.0	5.0	5.5	5.5	5.0
	PULLEYSIZE (FAN SIDE)	mm	241.3	228.6	228.6	215.9	228.6	228.6	203.2
		inch	9.5	9.0	9.0	8.5	9.0	9.0	8.0
	BELT SIZE	inch	B40×2	B39×2	B39×2	B38×2	B39×2	B39×2	B37×2
	MOTOR	kw	2.2	2.2	2.2	2.2	2.2	2.2	3.0
300	FAN SPEED	rpm	910	910	910	970	1000	970	1040
	PULLEYSIZE (MOTOR SIDE)	mm	127	127	127	127	139.7	127	127
		inch	5.0	5.0	5.0	5.0	5.5	5.0	5.0
	PULLEYSIZE (FAN SIDE)	mm	203.2	203.2	203.2	190.5	203.2	190.5	177.8
		inch	8.0	8.0	8.0	7.5	8.0	7.5	7.0
	BELT SIZE	inch	B37×2	B37×2	B37×2	B36×2	B37×2	B36×2	B35×2
	MOTOR	kw	2.2	2.2	2.2	2.2	3.0	3.0	3.0
400	FAN SPEED	rpm	1040	1040	1040	1040	1040	1040	-
	PULLEYSIZE (MOTOR SIDE)	mm	127	127	127	127	127	127	-
		inch	5.0	5.0	5.0	5.0	5.0	5.0	-
	PULLEYSIZE (FAN SIDE)	mm	177.8	177.8	177.8	177.8	177.8	177.8	-
		inch	7.0	7.0	7.0	7.0	7.0	7.0	-
	BELT SIZE	inch	B35×2	B35×2	B35×2	B35×2	B35×2	B35×2	-
	MOTOR	kw	2.2	2.2	3.0	3.0	3.0	3.0	-
500	FAN SPEED	rpm	1120	1140	1120	1120	-	-	-
	PULLEYSIZE (MOTOR SIDE)	mm	127	139.7	127	127	-	-	-
		inch	5.0	5.5	5.0	5.0	-	-	-
	PULLEYSIZE (FAN SIDE)	mm	165.1	177.8	165.1	165.1	-	-	-
		inch	6.5	7.0	6.5	6.5	-	-	-
	BELT SIZE	inch	B34×2	B36×2	B34×2	B34×2	-	-	-
	MOTOR	kw	2.2	3.0	3.0	3.0	-	-	-
600	FAN SPEED	rpm	1210	1230	1230	-	-	-	-
	PULLEYSIZE (MOTOR SIDE)	mm	127	139.7	139.7	-	-	-	-
		inch	5.0	5.5	5.5	-	-	-	-
	PULLEYSIZE (FAN SIDE)	mm	152.4	165.1	165.1	-	-	-	-
		inch	6.0	6.5	6.5	-	-	-	-
	BELT SIZE	inch	B33×2	B35×2	B35×2	-	-	-	-
	MOTOR	kw	3	3	3	-	-	-	-

※ [ ] Std.

PR-20YC
PRH-20YA
PRH-20YA-L



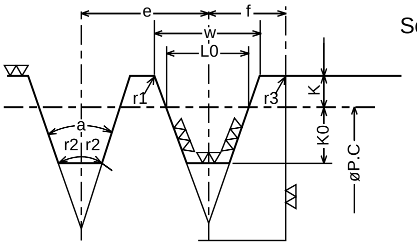
Airflow

External static pressure (Pa)								
	CMM		170	180	190	200	210	220
	L/S		2830	3000	3170	3330	3500	3670
100	FAN SPEED	rpm	730	810	810	840	910	940
	PULLEY SIZE (MOTOR SIDE)	mm	127	127	127	139.7	127	139.7
		inch	5.0	5.0	5.0	5.5	5.0	5.5
	PULLEY SIZE (FAN SIDE)	mm	254	228.6	228.6	241.3	203.2	215.9
		inch	10.0	9.0	9.0	9.5	8.0	8.5
	BELT SIZE	inch	B43× 2	B41× 2	B41× 2	B42× 2	B39× 2	B41× 2
	MOTOR	kw	3.0	3.0	3.0	3.0	3.0	4.0
200	FAN SPEED	rpm	850	910	910	910	1000	970
	PULLEY SIZE (MOTOR SIDE)	mm	127	127	127	127	139.7	127
		inch	5.0	5.0	5.0	5.0	5.5	5.0
	PULLEY SIZE (FAN SIDE)	mm	215.9	203.2	203.2	203.2	203.2	190.5
		inch	8.5	8.0	8.0	8.0	8.0	7.5
	BELT SIZE	inch	B40× 2	B39× 2	B39× 2	B39× 2	B40× 2	B38× 2
	MOTOR	kw	3.0	3.0	3.0	3.0	4.0	4.0
300	FAN SPEED	rpm	940	1000	1040	1040	1040	-
	PULLEY SIZE (MOTOR SIDE)	mm	139.7	139.7	127	127	127	-
		inch	5.5	5.5	5.0	5.0	5.0	-
	PULLEYSIZE (FAN SIDE)	mm	215.9	203.2	177.8	177.8	177.8	-
		inch	8.5	8.0	7.0	7.0	7.0	-
	BELT SIZE	inch	B41× 2	B40× 2	B37× 2	B37× 2	B37× 2	-
	MOTOR	kw	3.0	3.0	4.0	4.0	4.0	-
400	FAN SPEED	rpm	1040	1040	1060	1120	-	-
	PULLEY SIZE (MOTOR SIDE)	mm	127	127	139.7	127	-	-
		inch	5.0	5.0	5.5	5.0	-	-
	PULLEY SIZE (FAN SIDE)	mm	177.8	177.8	190.5	165.1	-	-
		inch	7.0	7	7.5	6.5	-	-
	BELT SIZE	inch	B37× 2	B37× 2	B39× 2	B36× 2	-	-
	MOTOR	kw	3.0	4.0	4.0	4.0	-	-
500	FAN SPEED	rpm	1140	1120	-	-	-	-
	PULLEY SIZE (MOTOR SIDE)	mm	139.7	127	-	-	-	-
		inch	5.5	5.0	-	-	-	-
	PULLEY SIZE (FAN SIDE)	mm	177.8	165.1	-	-	-	-
		inch	7.0	6.5	-	-	-	-
	BELT SIZE	inch	B38× 2	B36× 2	-	-	-	-
	MOTOR	kw	4	4	-	-	-	-
600	FAN SPEED	rpm	1230	-	-	-	-	-
	PULLEY SIZE (MOTOR SIDE)	mm	139.7	-	-	-	-	-
		inch	5.5	-	-	-	-	-
	PULLEY SIZE (FAN SIDE)	mm	165.1	-	-	-	-	-
		inch	6.5	-	-	-	-	-
	BELT SIZE	inch	B37× 2	-	-	-	-	-
	MOTOR	kw	4.0	-	-	-	-	-

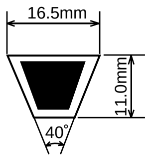
※ (shaded) Std.

Pulley outside dimensions are shown below: (Unit : mm)

(1) Shape of belt groove



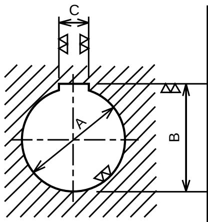
Sectional plan of V-belt



B type

Shape of V-belt	Nominal Dia. øP.C	a (˚)	W	L0	K	K0	e	f	r1	r2	r3	V-belt thickness (Reference)
B	Over 125 Under 160	34	15.86	12.5	5.5	9.5	19.0	12.5	0.2~0.5	0.5~1.0	1~2	11
	Over 160 Under 200	36	16.07									
	Over 200	38	16.29									

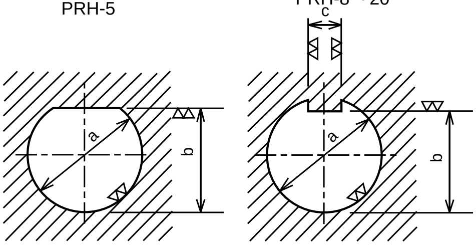
(2) Shape of motor pulley boss (Unit : mm)



MOTOR CAPACITY (kW)	A	B	C
0.75	$\phi 19^{+0.009}_{-0.004}$	$15.5^{\ 0}_{-0.2}$	$6^{+0.073}_{+0.040}$
1.1	$\phi 24^{+0.009}_{-0.004}$	$20.0^{\ 0}_{-0.2}$	$8^{+0.073}_{+0.040}$
1.5	$\phi 24^{+0.009}_{-0.004}$	$20.0^{\ 0}_{-0.2}$	$8^{+0.073}_{+0.040}$
2.2, 3.0	$\phi 28^{+0.009}_{-0.004}$	$23.9^{\ 0}_{-0.2}$	$8^{+0.073}_{+0.040}$
4.0	$\phi 28^{+0.009}_{-0.004}$	$23.9^{\ 0}_{-0.2}$	$8^{+0.073}_{+0.040}$
5.5	$\phi 38^{+0.018}_{-0.002}$	$33.0^{\ 0}_{-0.2}$	$10^{+0.089}_{+0.050}$

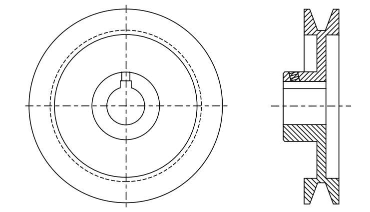
PR-5
PRH-5

PR-8～20
PRH-8～20

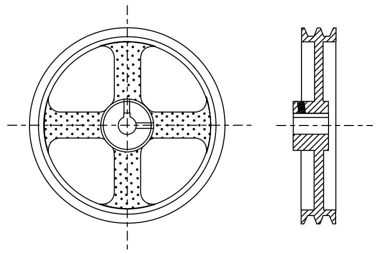


MODEL	a	b	c
PR-5 PRH-5	$\phi 20^{-0.020}_{-0.007}$	$19^{\ 0}_{-0.1}$	
PR-8,10 PRH-8, 10	$\phi 20^{-0.020}_{-0.007}$	$16.5^{\ 0}_{-0.1}$	$6^{\ 0}_{-0.036}$
PR-15,20 PRH-15, 20	$\phi 25^{-0.020}_{-0.007}$	$21.0^{\ 0}_{-0.1}$	$8^{\ 0}_{-0.036}$

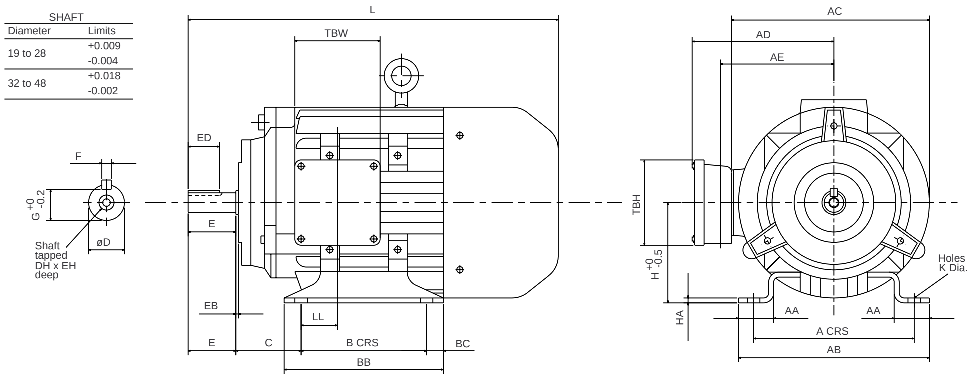
PR-5～10
PRH-5～10 Pulley for blower & motor



PR-15,20
PRH-15, 20 Pulley for blower & motor



(3) Shape of motor (Unit : mm)



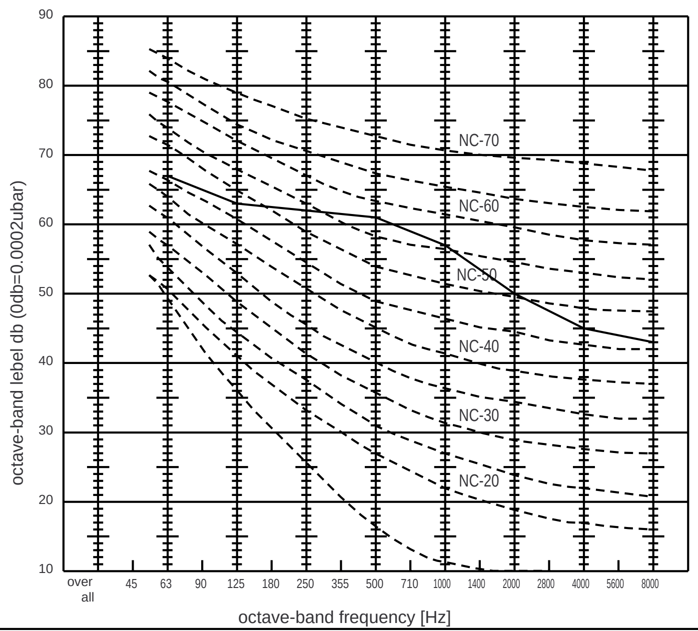
OUT PUT	Frame Size	Fixing A	B	C	H	K	Shaft D	E	F	G	ED	DH	EH	General AA	AB	BB	BC	L	HA	AC	AD	AE	EB	LL	TBW	TBH
0.75	80	125	100	50	80	10	19	40	6	15.5	25	M6	16	27	157	127	13.5	295	4	158	132	102	1.5	75	103	103
1.1	90SN	140	100	56	90	10	24	50	8	20	32	M8	19	28	174	152	38.5	320	4	178	140	110	1.5	100	103	103
1.5	90N	140	125	56	90	10	24	50	8	20	32	M8	19	28	174	152	13.5	320	4	178	140	110	1.5	100	103	103
2.2,3.0	100L	160	140	63	100	12	28	60	8	23.9	40	M10	22	28	184	170	15	371	4	208	138	120	1.6	23	103	103
4.0	112M	190	140	70	112	12	28	60	8	23.9	40	M10	22	35	218	170	15	377	4	215	164	130	1.6	23	131	131
5.5	132S	216	140	89	132	12	38	80	10	33	56	M12	28	38	243	208	53	458	5	257	189	154	1.6	26	131	131

NC CURVES

PR-5YC
PRH-5YA
PRH-5YA-L

50Hz

CONDITION	A scale	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
COOLING & HEATING	62db	67	63	62	61	57	50	45	43

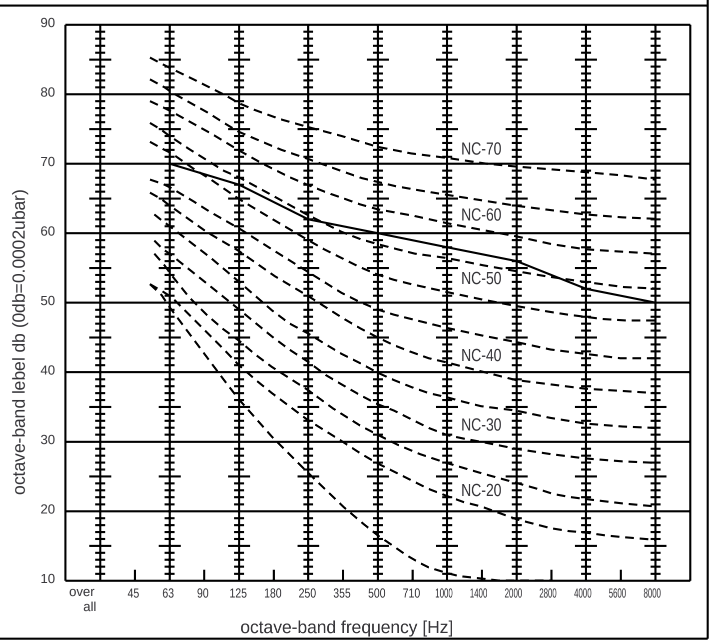


Note. The measuring point is 1m from the comp. service panel.

PR-8YC
PRH-8YA
PRH-8YA-L

50Hz

CONDITION	A scale	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
COOLING & HEATING	64db	70	67	62	60	58	56	52	50

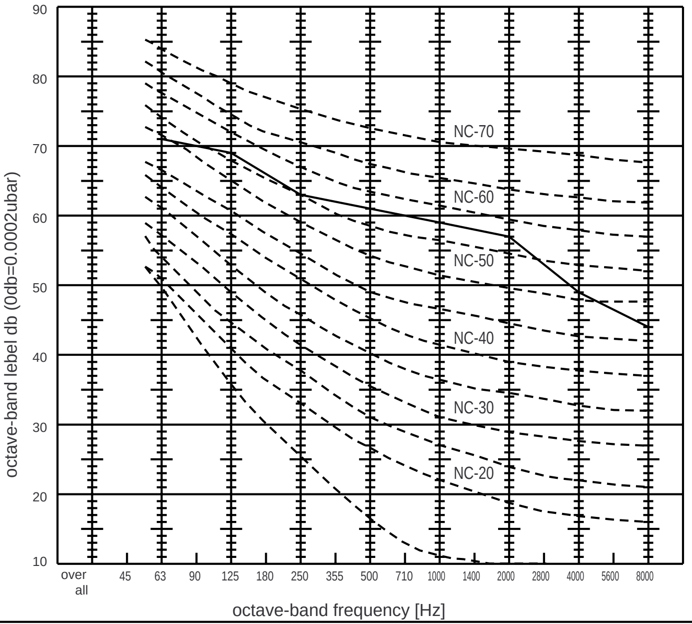


Note. The measuring point is 1m from the comp. service panel.

PR-10YC
PRH-10YA
PRH-10YA-L

50Hz

CONDITION	A scale	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
COOLING & HEATING	64db	71	69	63	61	59	57	49	44

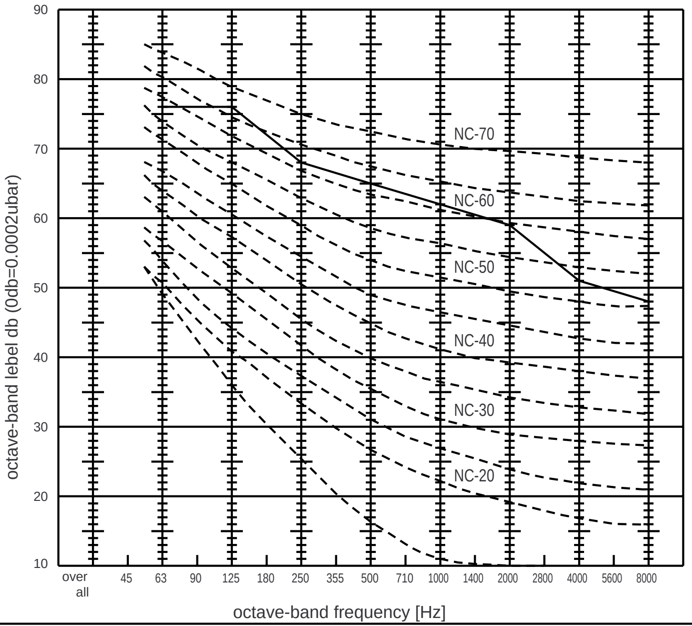


Note. The measuring point is 1m from the comp. service panel.

PR-15YC
PRH-15YA
PRH-15YA-L

50Hz

CONDITION	A scale	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
COOLING & HEATING	68db	76	76	68	65	62	59	51	48

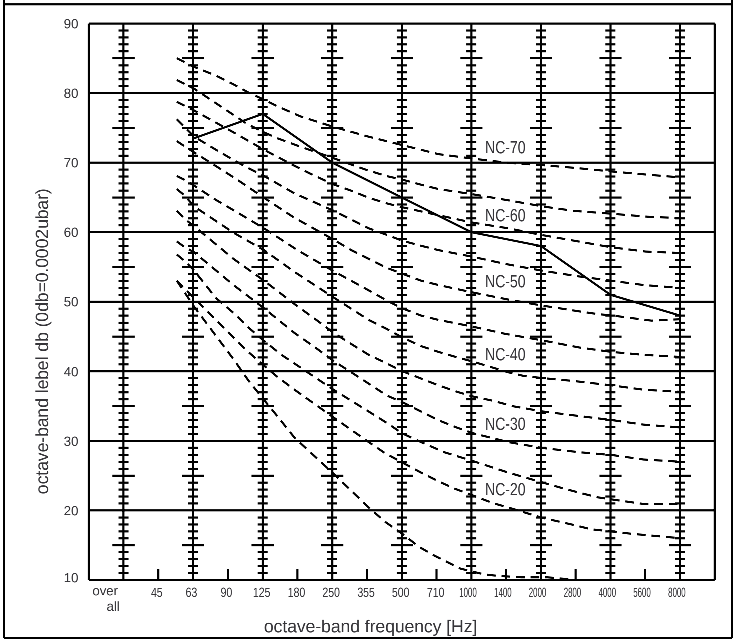


Note. The measuring point is 1m from the comp. service panel.

PR-20YC
PRH-20YA
PRH-20YA-L

50Hz

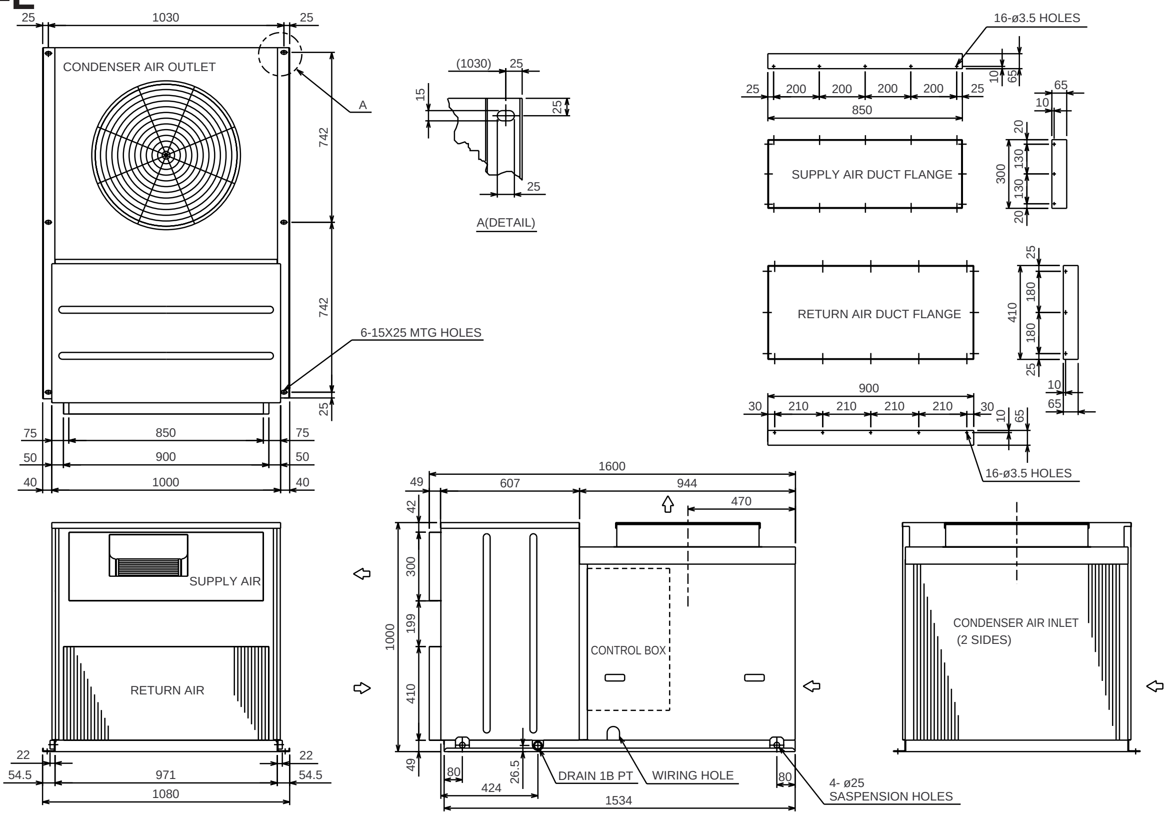
		CONDITION	A scale	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
		COOLING & HEATING	68db	73.5	77	70	65	60	58	51	48



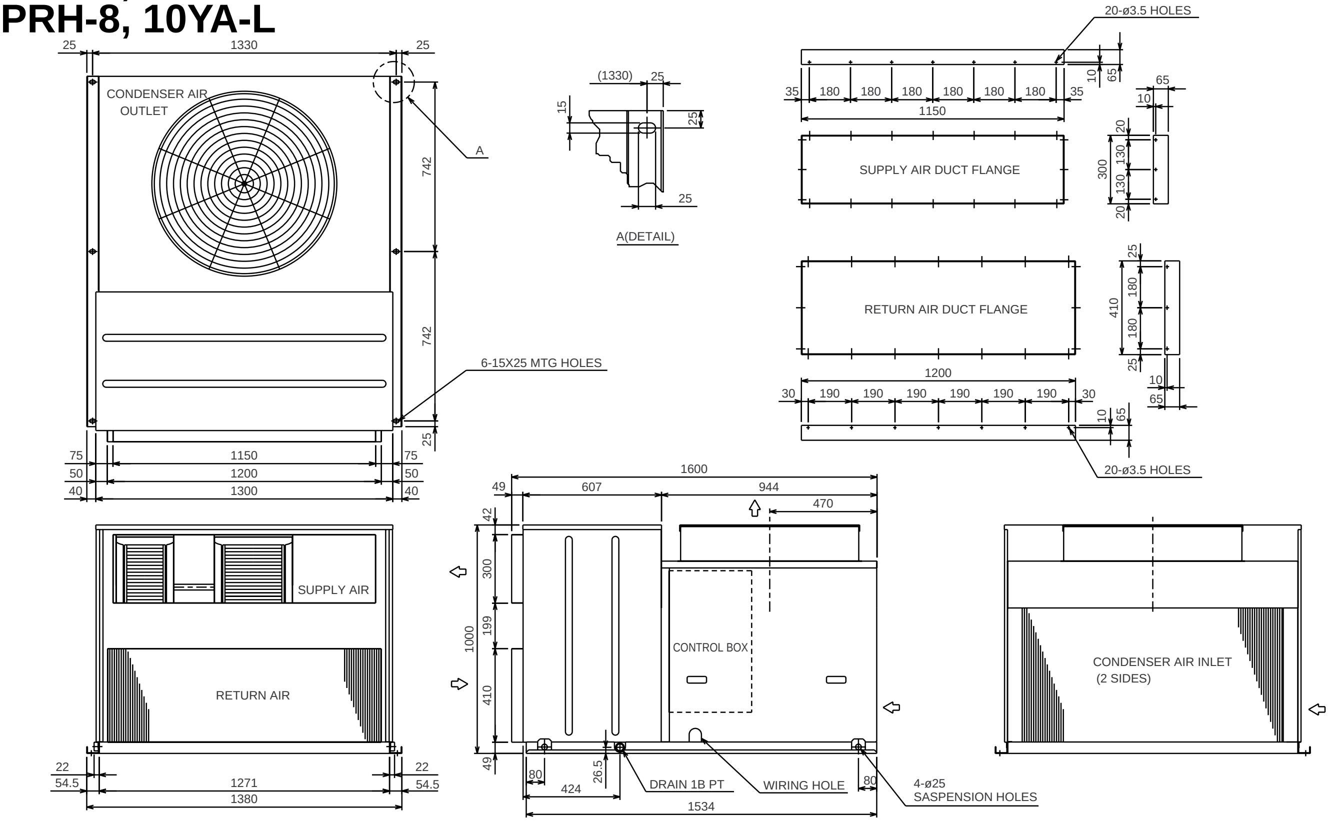
Note. The measuring point is 1m from the comp. service panel.

OUTLINE DIMENSIONS

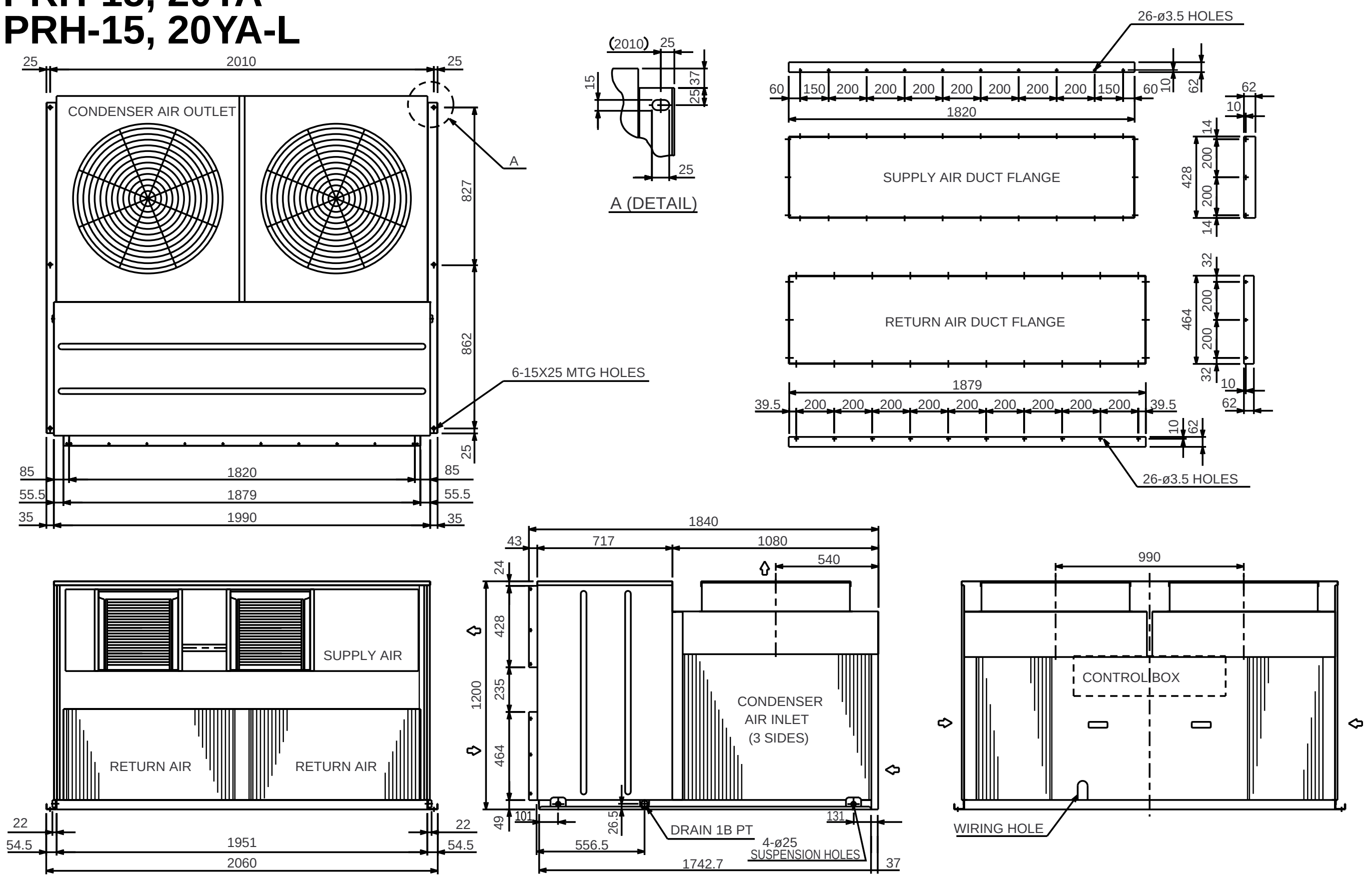
PR-5YC
PRH-5YA
PRH-5YA-L



PR-8,10YC
PRH-8, 10YA
PRH-8, 10YA-L

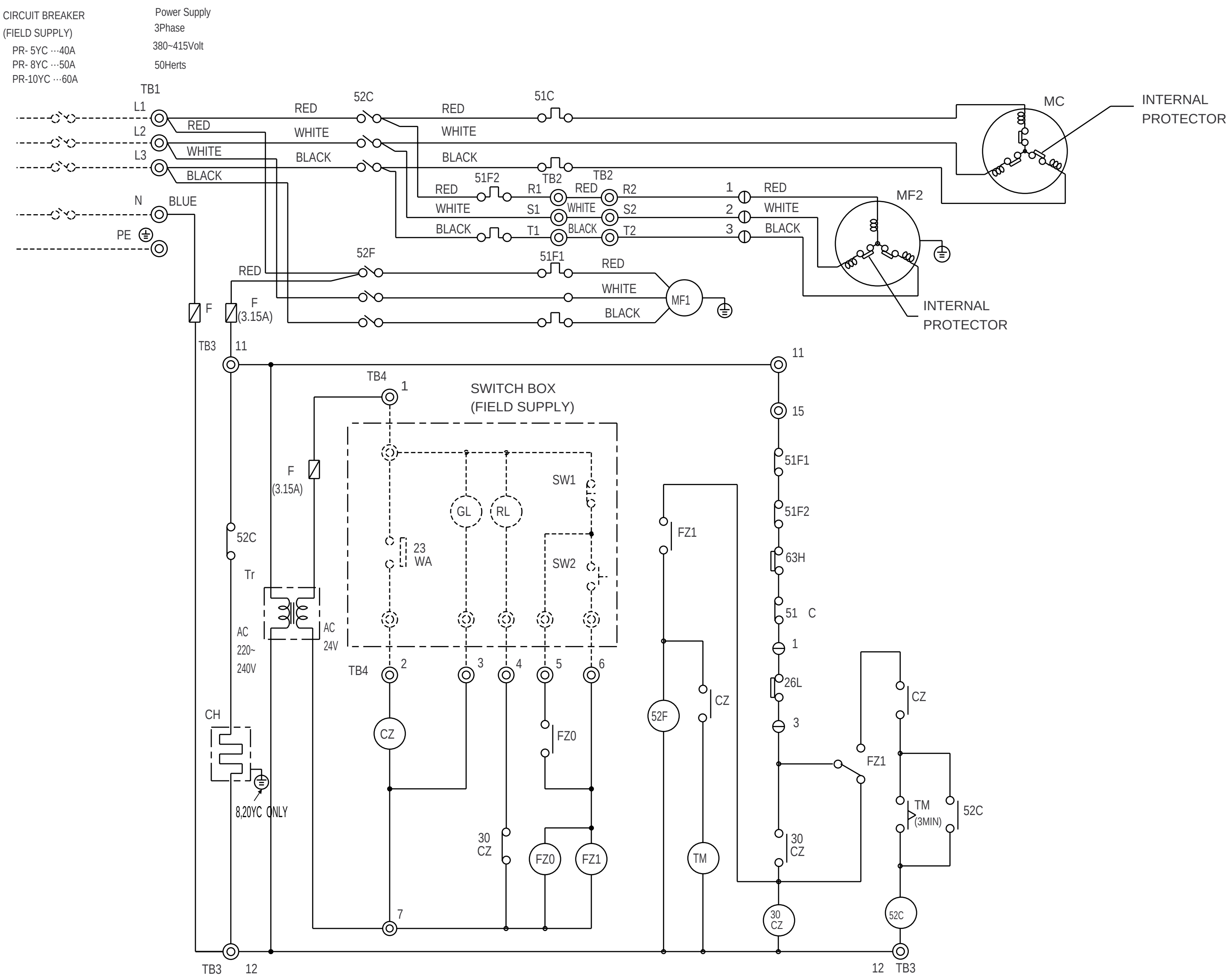


PR-15,20YC
PRH-15, 20YA
PRH-15, 20YA-L



WIRING DIAGRAMS

PR-5, 8, 10YC (STANDARD)

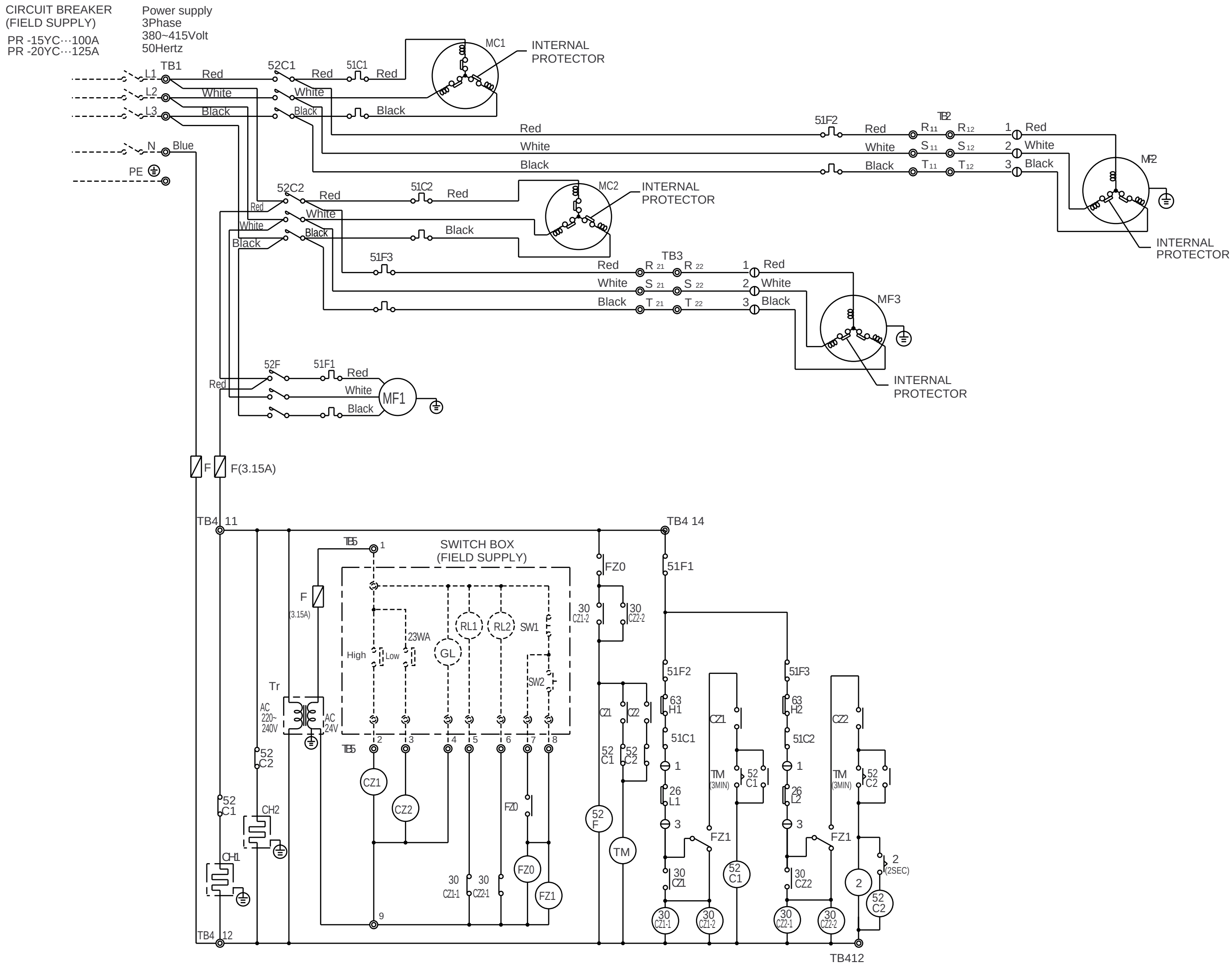


Caution,
1.To protect each Fan motors and Compressors from abnormal current, these Over current relays<51C>,<51F1,2>are installed. Therefore,do not change factory set value of these Over current relays.
2.To protect the compressor from frequently "ON-OFF" ,timer<TM>is installed. Therefore,do not change factory set value of this timer.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor (in door)
MF2	Fan motor (out door)
52C	Contactor (compressor)
52F	Contactor (fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr	Transformer
51C	Over current relay(compressor)
51F1, 2	Over current relay (fan I/D,O/D)
63H	High-pressure switch
26L	Thermostat(freeze protection)
TM	Timer (anti short cycle)
FZ0·1	Auxiliary relay (fan)
CZ	Auxiliary relay (compressor)
30CZ	Auxiliary relay (check)
<SW1>	Switch (off)
<SW2>	Switch (on)
<GL>	Lamp (operation)
<RL>	Lamp (check)
<23WA>	Thermostat (room temp.)

PR-15, 20YC (STANDARD)

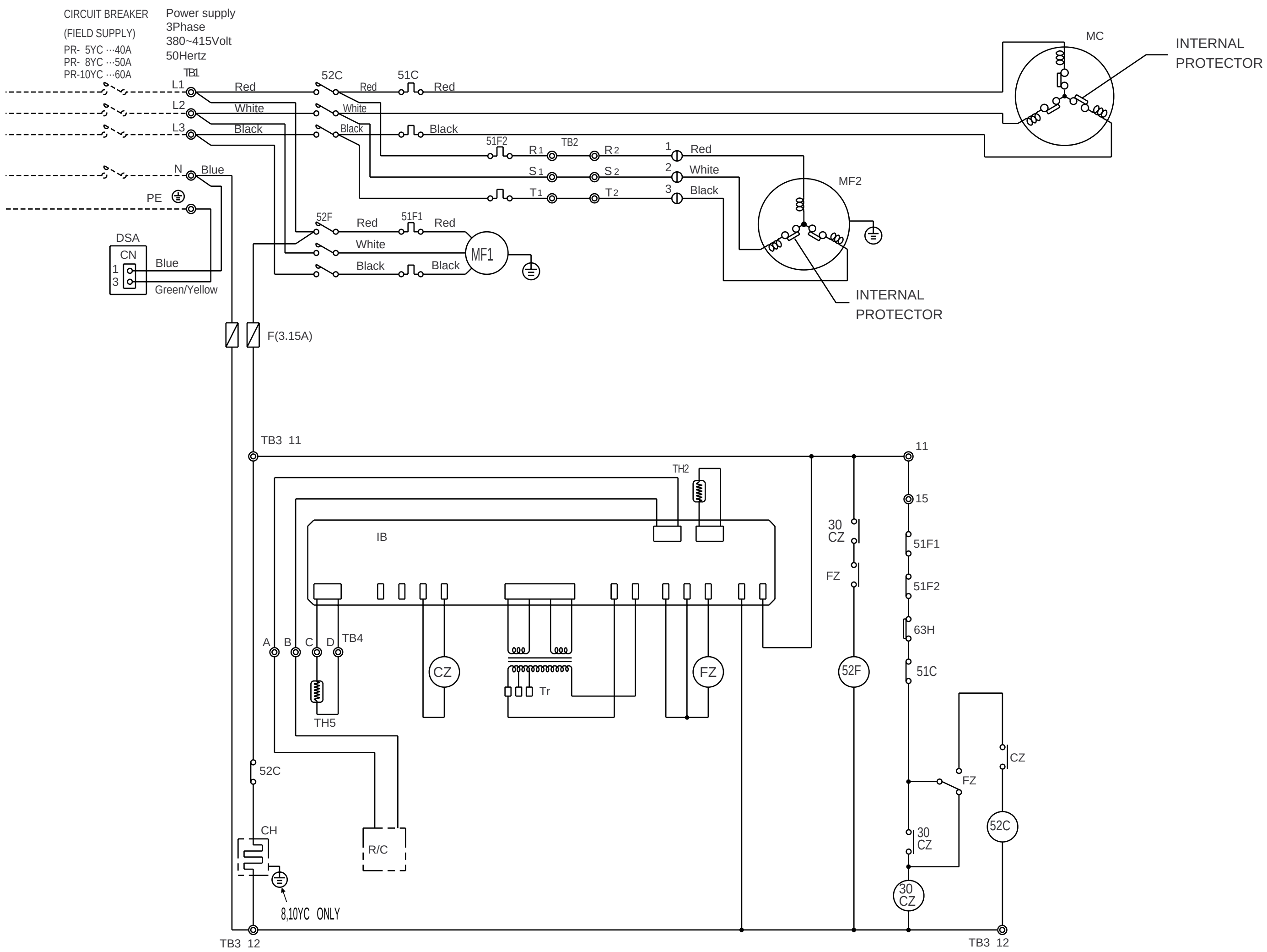


Caution,
1.To protect each Fan motors and Compressors from abnormal current, these Over current relays <51C1,2> , <51F1,2,3> are installed. Therefore,do not change factory set value of these Over current relays.
2.To protect the compressors from frequently "ON-OFF" ,timer <TM> is installed. Therefore,do not change factory set value of this timer.
3.This timer <2> installed so that two compressors may never start at the same time. The unit stop if the set value of the timer is changed.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC1·2	Compressor motor
MF1	Fan motor (in door)
MF2·3	Fan motor (out door)
52C1·2	Contactor (compressor)
52F	Contactor (fan I/D)
TB1~5	Terminal block
CH1·2	Crankcase heater
F	Fuse
Tr	Transformer
51C1·2	Over current relay(compressor)
51F1~3	Over current relay (fan I/D,O/D)
63H1·2	High-pressure switch
26L1·2	Thermostat(freeze protection)
TM	Timer (anti short cycle)
2	Timer
FZ0·1	Auxiliary relay (fan)
CZ1·2	Auxiliary relay (compressor)
30CZ1-1,2	Auxiliary relay (check)
30CZ2-1,2	Auxiliary relay (check)
<SW1>	Switch (off)
<SW2>	Switch (on)
<GL>	Lamp (power on)
<RL1·2>	Lamp (check)
<23WA>	Thermostat (room temp.)

PR-5, 8, 10YC
(SPECIAL ORDER : K CONTROL)

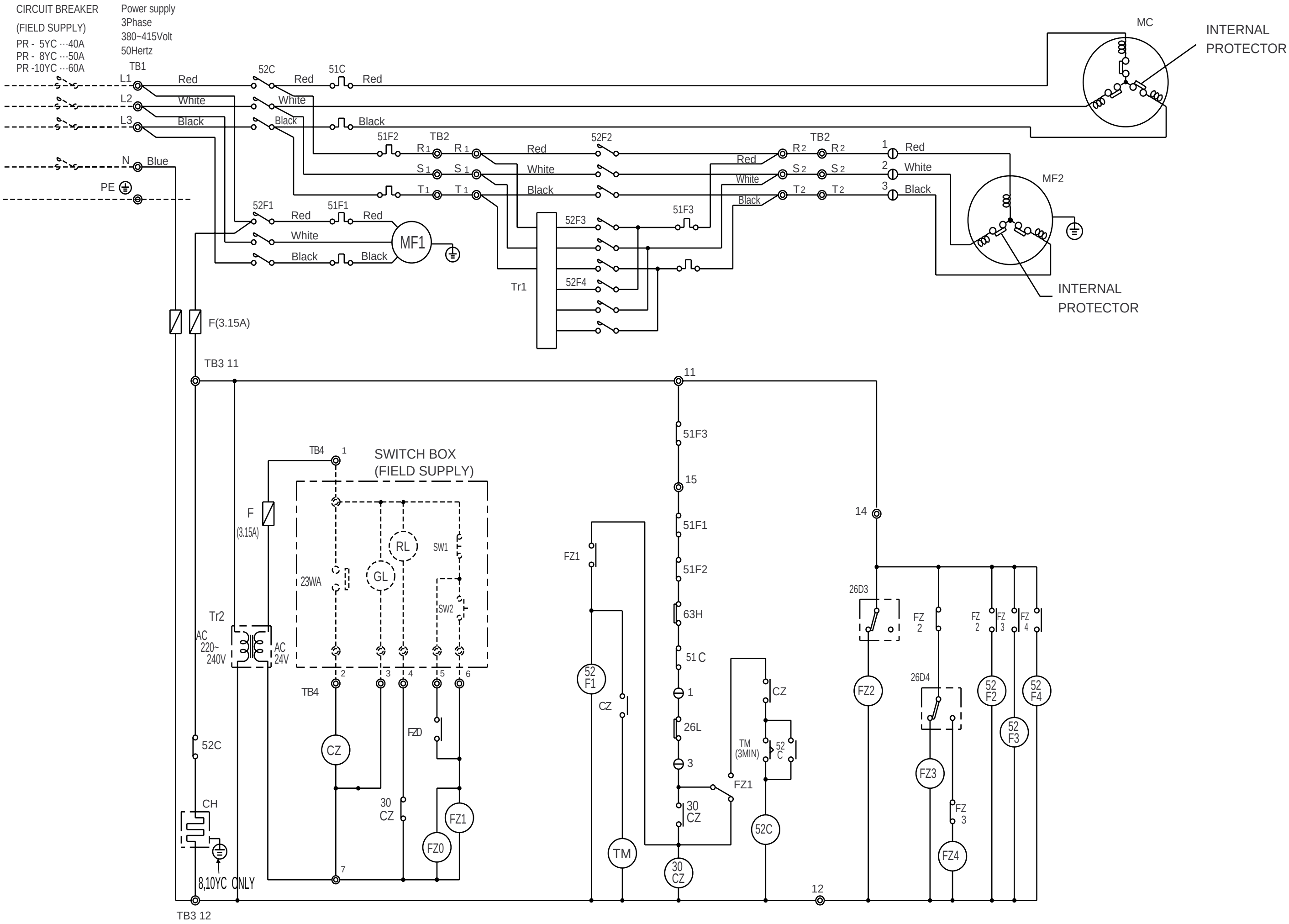


Caution,
To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2>are installed.
Therefore,do not change factory set value of these Over current relays.

Note:
1. The dotted lines show field wiring.
2. The figure in the parentheses show field supply parts.
3. Color of earth wire is yellow and green twisting.
4. Not specified color of wire is brown.
5. Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor(indoor)
MF2	Fan motor(outdoor)
52C	Contactor(compressor)
52F	Contactor(fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr	Transformer
51C	Over current relay(compressor)
51F1,2	Over current relay(fanI/D,O/D)
63H	High-pressure switch
FZ	Auxiliary relay(fan)
CZ	Auxiliary relay(compressor)
30CZ	Auxiliary relay(check)
IB	Indoor board
TH2	Thermistor(pipe)
TH5	Thermistor(room temp.)
R/C	Remote controller
DSA	Surge absorber circuit board

PR-5, 8, 10YC
(SPECIAL ORDER : LOW TEMPERATURE)

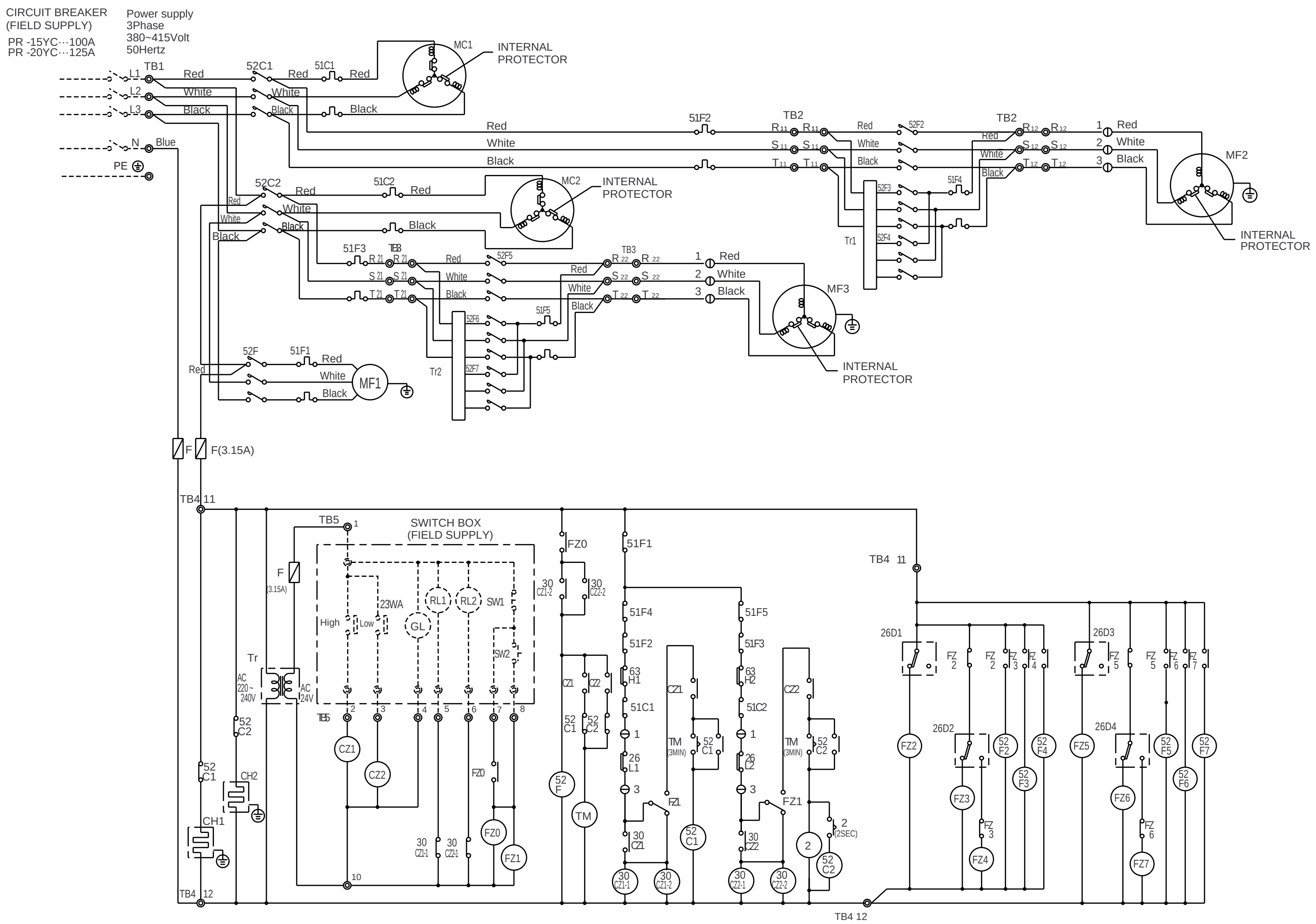


Caution,
1.To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2,3>are installed. Therefore,do not change factory set value of these Over current relays.
2.To protect the compressor from frequently "ON-OFF" ,timer<TM>is installed. Therefore,do not change factory set value of this timer.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor (indoor)
MF2	Fan motor (outdoor)
52C	Contactor (compressor)
52F1	Contactor (fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr1·2	Transformer
51C	Over current relay(compressor)
51F1,2,3	Over current relay(fanI/D,O/D)
63H	High-pressure switch
26L	Thermostat(freeze protection)
TM	Timer (anti short cycle)
FZ0,1	Auxiliary relay (fan)
CZ	Auxiliary relay (compressor)
30CZ	Auxiliary relay (check)
<SW1>	Switch (off)
<SW2>	Switch (on)
<GL>	Lamp (operation)
<RL>	Lamp (check)
<23WA>	Thermostat (room temp.)
52F2~4	Contactor (fan O/D)
FZ2~4	Auxiliary relay (fan O/D)

PR-15, 20YC
(SPECIAL ORDER : LOW TEMPERATURE)

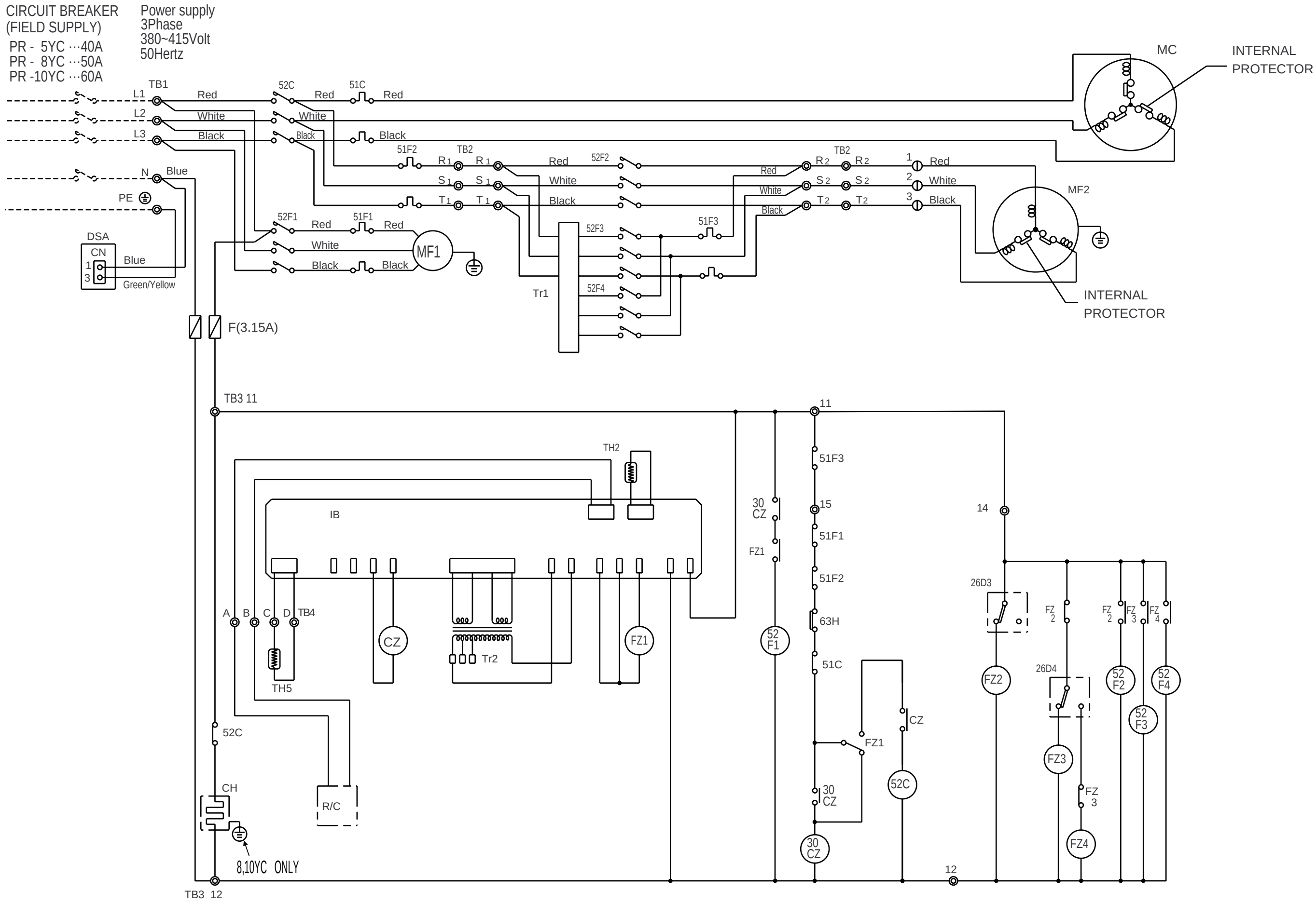


Caution,
1.To protect each Fan motors and Compressors from abnormal current,these Over current relays<51C1,2>, <51F1~5>are installed.
Therefore,do not change factory set value of these Over current relays.
2.To protect the compressors from frequently "ON-OFF",timer<TM>is installed. Therefore,do not change factory set value of this timer.
3.This timer<2>installed so that two compressors may never start at the same time. The unit stop if the set value of the timer is changed.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC1·2	Compressor motor
MF1	Fan motor (indoor)
MF2·3	Fan motor (outdoor)
52C1·2	Contactor (compressor)
52F1	Contactor (fan I/D)
TB1~5	Terminal block
CH1·2	Crankcase heater
F	Fuse
Tr1~3	Transformer
51C1·2	Over current relay(compressor)
51F1~5	Over current relay (fan I/D,O/D)
63H1·2	High-pressure switch
26L1·2	Thermostat(freeze protection)
TM	Timer (anti short cycle)
2	Timer
FZ0·1	Auxiliary relay (fan)
CZ1·2	Auxiliary relay (compressor)
30CZ1-1, 2	Auxiliary relay (check)
30CZ2-1, 2	Auxiliary relay (check)
<SW1>	Switch (off)
<SW2>	Switch (on)
<GL>	Lamp (operation)
<RL1·2>	Lamp (check)
<23WA>	Thermostat (room temp.)
26D1~4	Thermostat (ambiemt temp.)
52F2~7	Contactor (fan O/D)
FZ2~7	Auxiliary relay (fan O/D)

PR-5, 8, 10YC
(SPECIAL ORDER : K CONTROL & LOW TEMPERATURE)

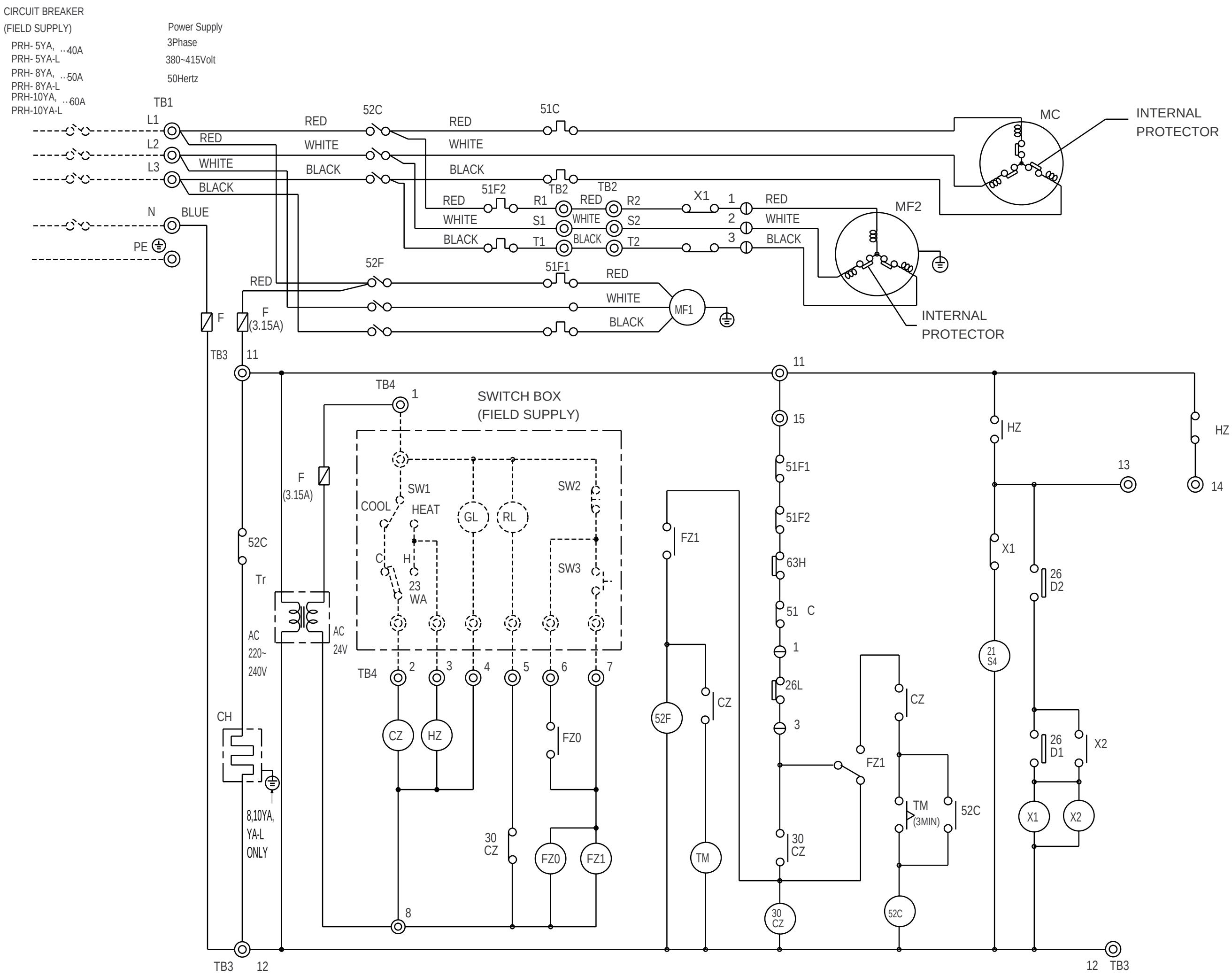


Caution,
To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2,3>are installed.
Therefore,do not change factory set value of these Over current relays.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor(indoor)
MF2	Fan motor(outdoor)
52C	Contactor(compressor)
52F1	Contactor(fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr1·2	Transformer
51C	Over current relay (compressor)
51F1,2,3	Over current relay(fanI/D,O/D)
63H	High-pressure switch
FZ1	Auxiliary relay(fan)
CZ	Auxiliary relay(compressor)
30CZ	Auxiliary relay(check)
IB	Indoor board
TH2	Thermistor(pipe)
52F2~4	Contactor(fan O/D)
FZ2~4	Auxiliary relay(fan O/D)
TH5	Thermistor(room temp)
R/C	Remote controller
DSA	Surge absorber circuit board

PRH-5, 8, 10YA
PRH-5, 8, 10YA-L (STANDARD)

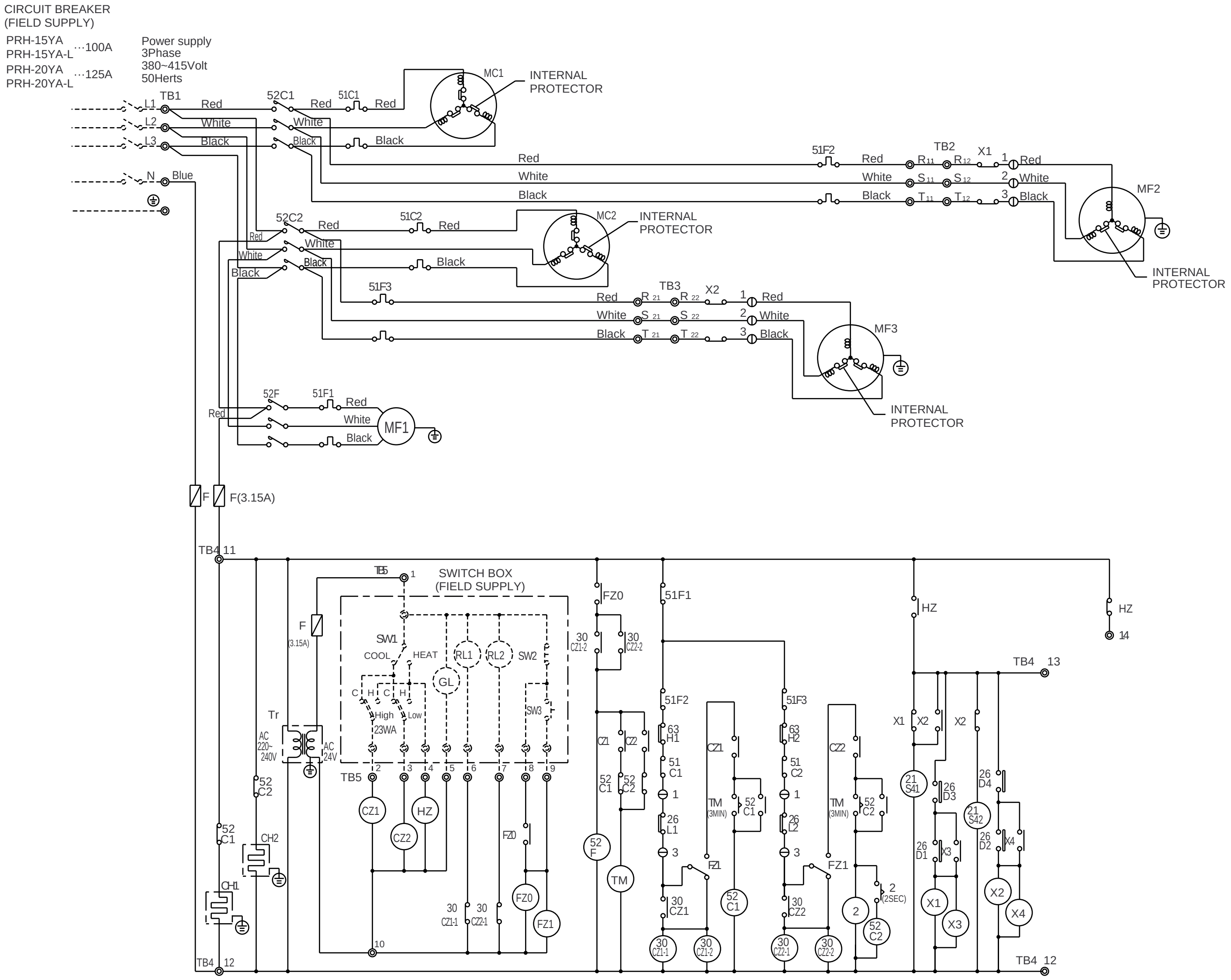


Caution,
1.To protect each Fan motors and Compressors from abnormal current, these Over current relays<51C>,<51F1,2>are installed.
Therefore,do not change factory set value of these Over current relays.
2.To protect the compressor from frequently "ON-OFF" ,timer<TM>is installed. Therefore,do not change factory set value of this timer.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor (in door)
MF2	Fan motor (out door)
52C	Contactor (compressor)
52F	Contactor (fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr	Transformer
51C	Over current relay(compressor)
51F1, 2	Over current relay (fan I/D,O/D)
63H	High-pressure switch
26L	Thermostat(freeze protection)
26D1·2	Thermostat (defrost)
TM	Timer (anti short cycle)
21S4	4-Way valve
FZ0·1	Auxiliary relay (fan)
CZ	Auxiliary relay (compressor)
HZ	Auxiliary relay (heater)
30CZ	Auxiliary relay (check)
X1·2	Auxiliary relay (defrost)
<SW1>	Switch (operation mode)
<SW2>	Switch (off)
<SW3>	Switch (on)
<GL>	Lamp (operation)
<RL>	Lamp (check)
<23WA>	Thermostat (room temp.)

PRH-15, 20YA
PRH-15, 20YA-L (STANDARD)



Caution,

1.To protect each Fan motors and Compressors from abnormal current, these Over current relays<51C1,2>,<51F1,2,3>are installed. Therefore,do not change factory set value of these Over current relays.

2.To protect the compressors from frequently "ON-OFF" ,timer<TM>is installed. Therefore,do not change factory set value of this timer.

3.This timer<2>installed so that two compressors may never start at the same time. The unit stop if the set value of the timer is changed.

Note:

1.The dotted lines show field wiring.

2.The figure in the parentheses show field supply parts.

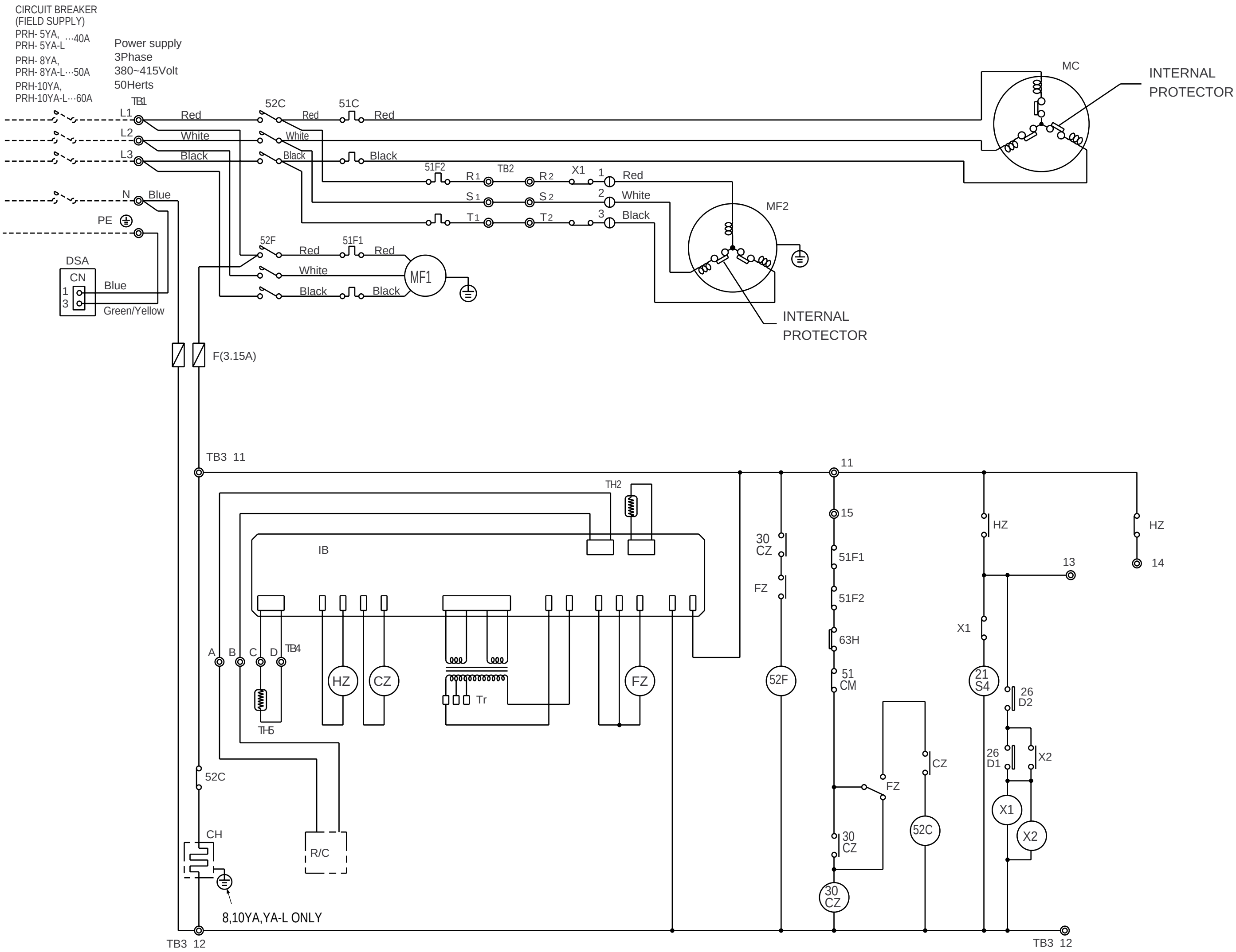
3.Color of earth wire is yellow and green twisting.

4.Not specified color of wire is brown.

5.Specification subject to change without notice.

Symbol	Name
MC1·2	Compressor motor
MF1	Fan motor (in door)
MF2·3	Fan motor (out door)
52C1·2	Contactor (compressor)
52F	Contactor (fan I/D)
TB1~5	Terminal block
CH1·2	Crankcase heater
F	Fuse
Tr	Transformer
51C1·2	Over current relay(compressor)
51F1~3	Over current relay (fan I/D,O/D)
63H1·2	High-pressure switch
26L1·2	Thermostat(freeze protection)
26D1~4	Thermostat (defrost)
TM	Timer (anti short cycle)
2	Timer
21S41·42	4-Way valve
FZ0·1	Auxiliary relay (fan)
CZ1·2	Auxiliary relay (compressor)
HZ	Auxiliary relay (heater)
30CZ1·1,2	Auxiliary relay (check)
30CZ2·1,2	Auxiliary relay (check)
X1~4	Auxiliary relay (defrost)
<SW1>	Switch (operation mode)
<SW2>	Switch (off)
<SW3>	Switch (on)
<GL>	Lamp (operation)
<RL1·2>	Lamp (check)
<23WA>	Thermostat (room temp.)

PRH-5, 8, 10YA
PRH-5, 8, 10YA-L
(SPECIAL ORDER : K CONTROL)

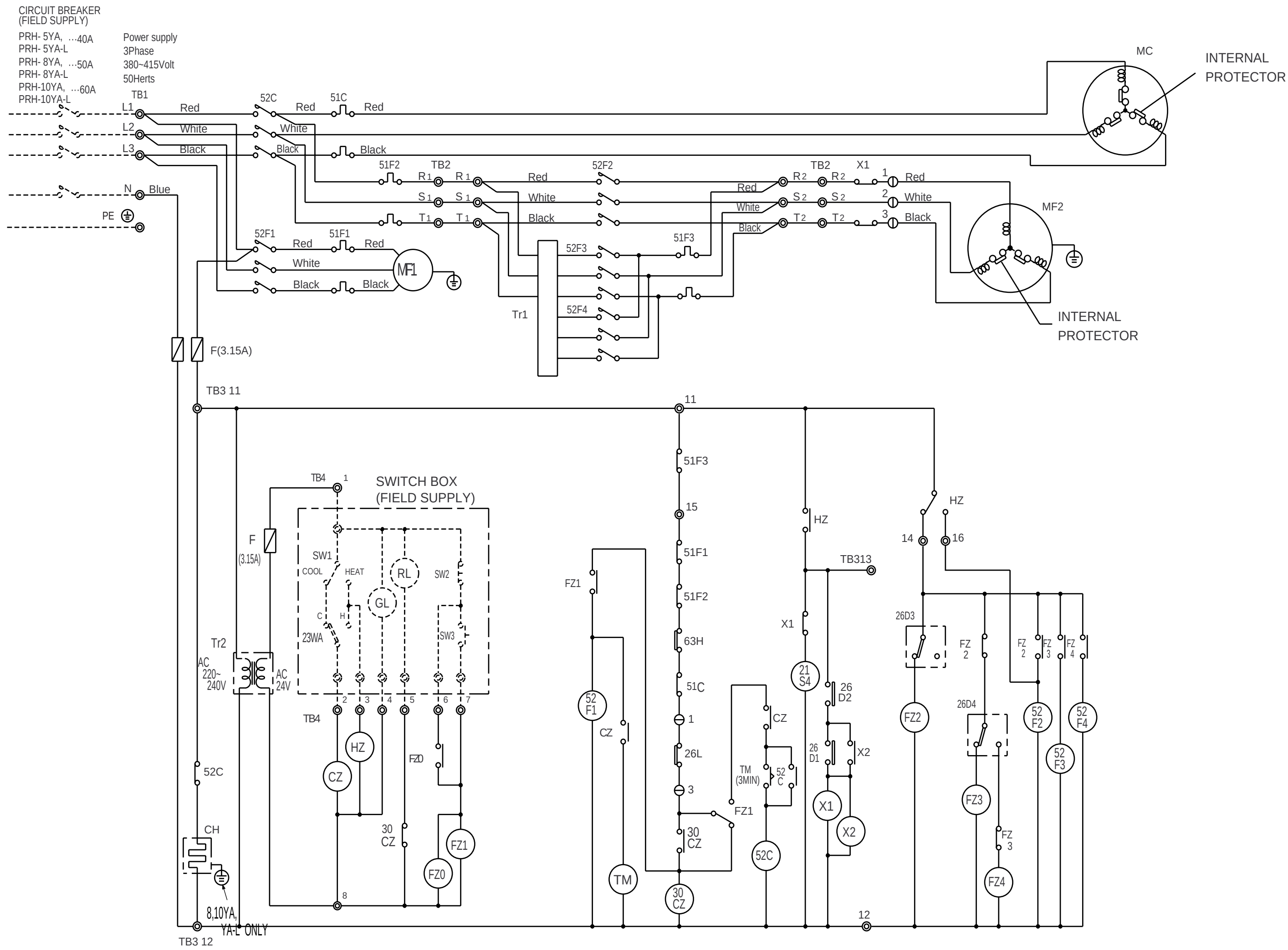


Caution,
To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2>are installed.
Therefore,do not change factory set value of these Over current relays.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor(indoor)
MF2	Fan motor(outdoor)
52C	Contactor(compressor)
52F	Contactor(fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr	Transformer
51C	Over current relay(compressor)
51F1,2	Over current relay(fanI/D,O/D)
63H	High-pressure switch
26D1·2	Thermostat(defrost)
21S4	4-Way valve
FZ	Auxiliary relay(fan)
CZ	Auxiliary relay(compressor)
HZ	Auxiliary relay(heater)
30CZ	Auxiliary relay(check)
X1·2	Auxiliary relay(defrost)
IB	Indoor board
TH2	Thermistor(pipe)
TH5	Thermistor(room temp.)
R/C	Remote controller
DSA	Surge absorber circuit board

PRH-5, 8, 10YA
PRH-5, 8, 10YA-L
(SPECIAL ORDER : LOW TEMPERATURE)

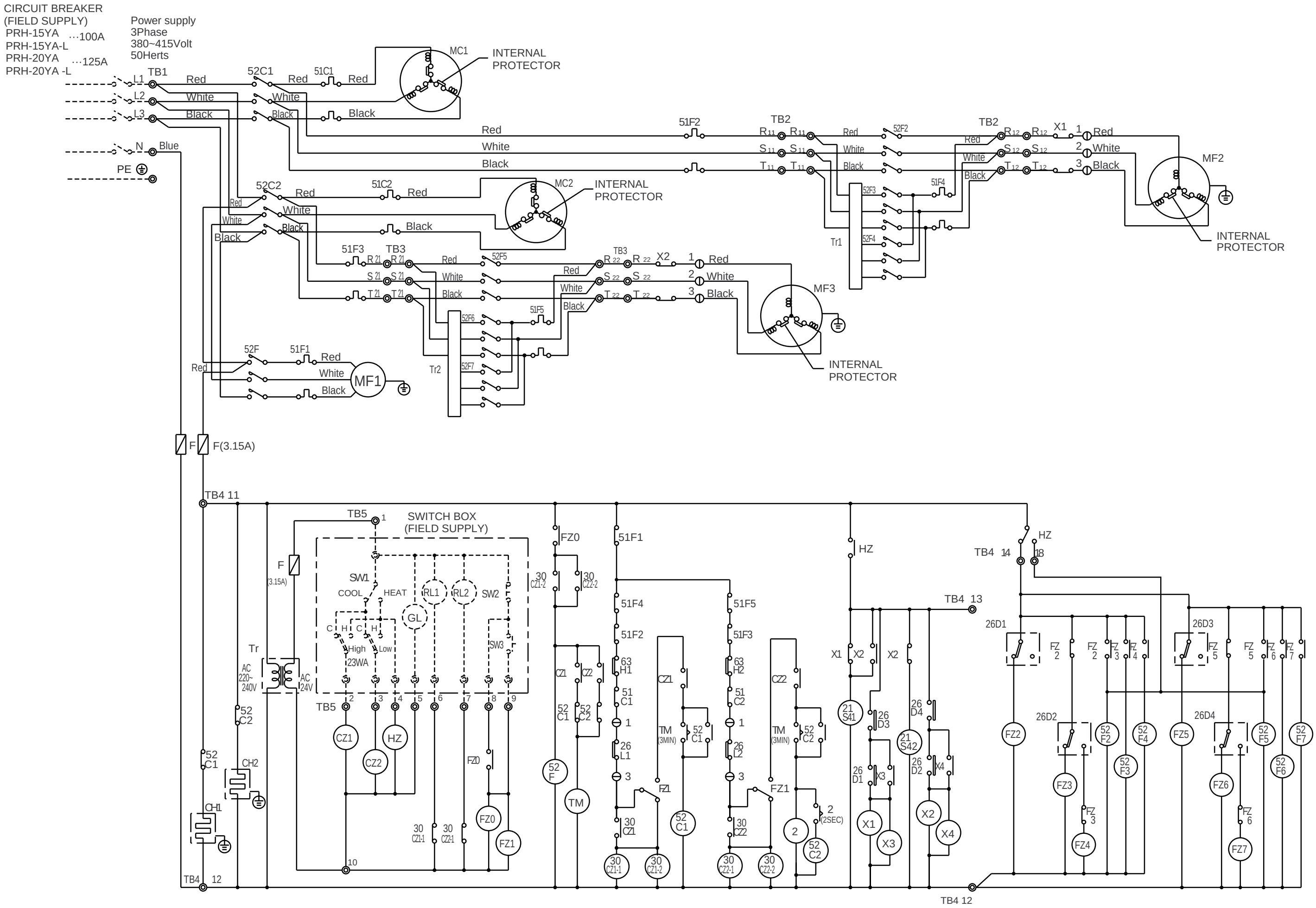


Caution,
1.To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2,3>are installed. Therefore,do not change factory set value of these Over current relays.
2.To protect the compressor from frequently "ON-OFF",timer<TM>is installed. Therefore,do not change factory set value of this timer.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC	Compressor motor
MF1	Fan motor (indoor)
MF2	Fan motor (outdoor)
52C	Contactor (compressor)
52F1	Contactor (fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr1·2	Transformer
51C	Over current relay(compressor)
51F1,2,3	Over current relay(fanI/D,O/D)
63H	High-pressure switch
26L	Thermostat(freeze protection)
26D1~4	Thermostat (defrost)
TM	Timer (anti short cycle)
21S4	4-Way valve
FZ0,1	Auxiliary relay (fan)
CZ	Auxiliary relay (compressor)
HZ	Auxiliary relay (heater)
30CZ	Auxiliary relay (check)
X1·2	Auxiliary relay (defrost)
<SW1>	Switch (operatin mode)
<SW2>	Switch (off)
<SW3>	Switch (on)
<GL>	Lamp (operation)
<RL>	Lamp (check)
<23WA>	Thermostat (room temp.)
52F2~4	Contactor (fan O/D)
FZ2~4	Auxiliary relay (fan O/D)

PRH-15, 20YA
PRH-15, 20YA-L
(SPECIAL ORDER : LOW TEMPERATURE)

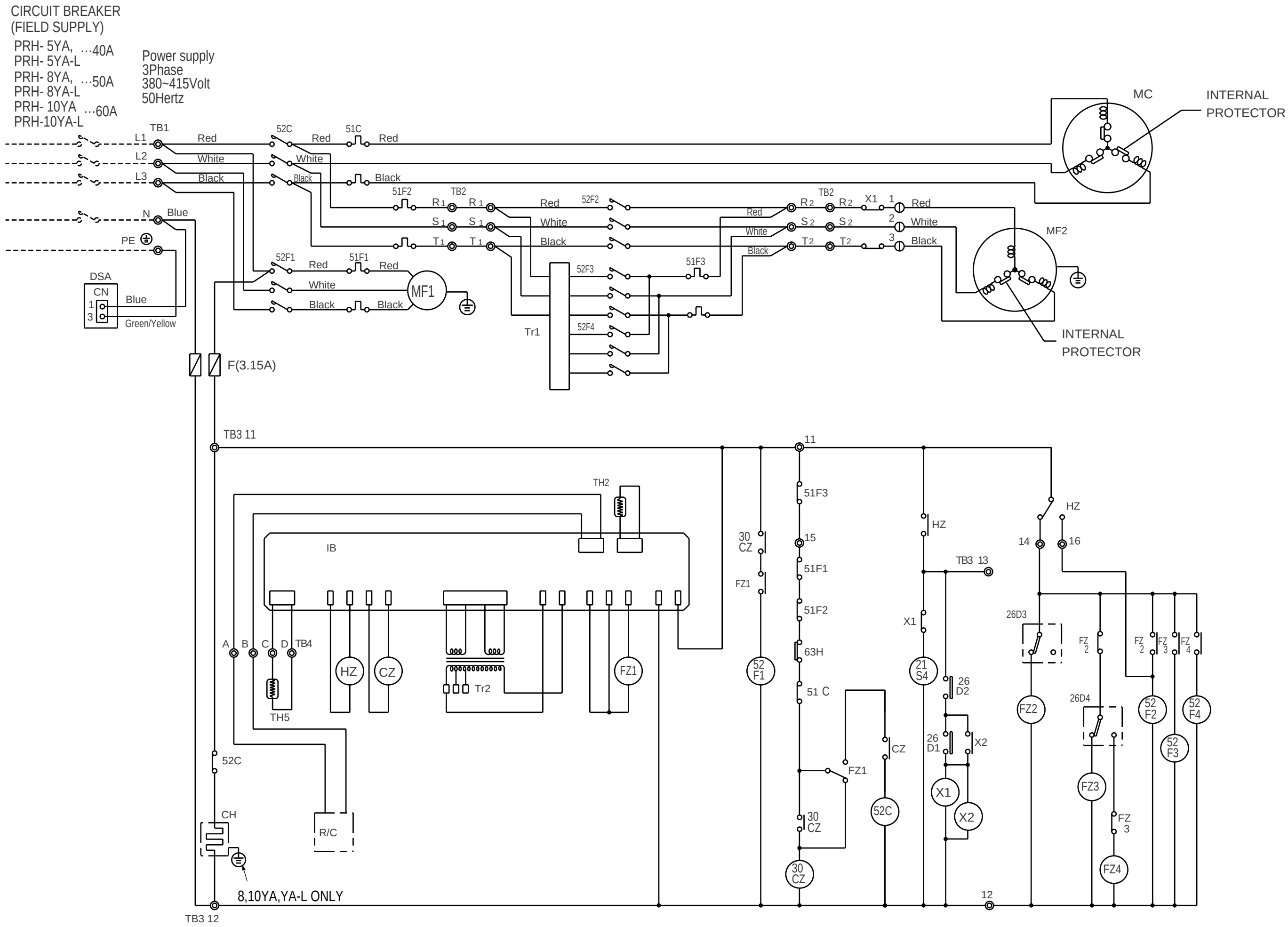


Caution,
1.To protect each Fan motors and Compressors from abnormal current,these Over current relays<51C1,2>, <51F1~5>are installed.
Therefore,do not change factory set value of these Over current relays.
2.To protect the compressors from frequently "ON-OFF",timer<TM>is installed. Therefore,do not change factory set value of this timer.
3.This timer<2>installed so that two compressors may never start at the same time. The unit stop if the set value of the timer is changed.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

Symbol	Name
MC1·2	Compressor motor
MF1	Fan motor (indoor)
MF2·3	Fan motor (outdoor)
52C1·2	Contactor (compressor)
52F1	Contactor (fan I/D)
TB1~5	Terminal block
CH1·2	Crankcase heater
F	Fuse
Tr1~3	Transformer
51C1·2	Over current relay(compressor)
51F1~5	Over current relay (fan I/D,O/D)
63H1·2	High-pressure switch
26L1·2	Thermostat(freeze protection)
26D1~4	Thermostat (defrost)
TM	Timer (anti short cycle)
2	Timer
21S41·42	4-Way valve
FZ0·1	Auxiliary relay (fan)
CZ1·2	Auxiliary relay (compressor)
HZ	Auxiliary relay (heater)
30CZ1-1, 2	Auxiliary relay (check)
30CZ2-1, 2	Auxiliary relay (check)
X1~4	Auxiliary relay (defrost)
<SW1>	Switch (operation mode)
<SW2>	Switch (off)
<SW3>	Switch (on)
<GL>	Lamp (operation)
<RL1·2>	Lamp (check)
<23WA>	Thermostat (room temp.)
26D1~4	Thermostat (ambiemt temp.)
52F2~7	Contactor (fan O/D)
FZ2~7	Auxiliary relay (fan O/D)

PRH-5, 8, 10YA
PRH-5, 8, 10YA-L
(SPECIAL ORDER : K CONTROL & LOW TEMPERATURE)



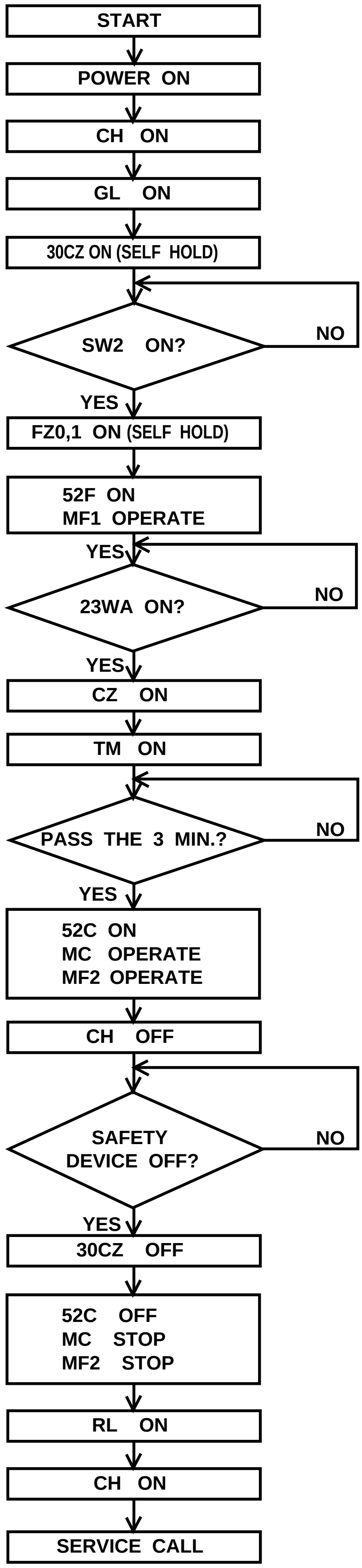
Caution,
To protect each Fan motors and Compressor from abnormal current, these Over current relays<51C>,<51F1,2,3>are installed.
Therefore,do not change factory set value of these Over current relays.

Note:
1.The dotted lines show field wiring.
2.The figure in the parentheses show field supply parts.
3.Color of earth wire is yellow and green twisting.
4.Not specified color of wire is brown.
5.Specification subject to change without notice.

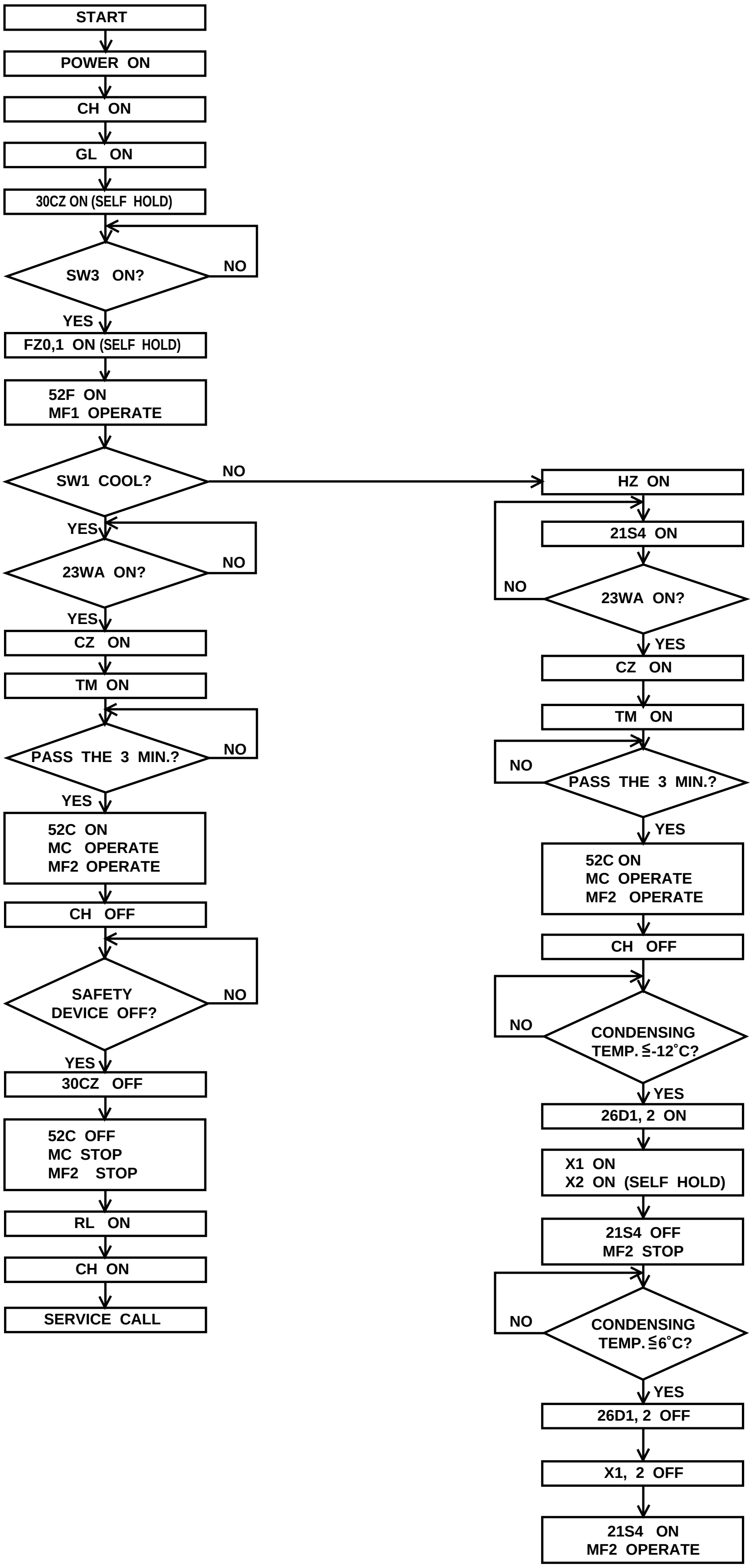
Symbol	Name
MC	Compressor motor
MF1	Fan motor(indoor)
MF2	Fan motor(outdoor)
52C	Contactor(compressor)
52F1	Contactor(fan I/D)
TB1~4	Terminal block
CH	Crankcase heater
F	Fuse
Tr1·2	Transformer
51C	Over current relay (compressor)
51F1,2,3	Over current relay(fanI/D,O/D)
63H	High-pressure switch
26D1~4	Thermostat(defrost)
21S4	4-Way valve
FZ1	Auxiliary relay(fan)
CZ	Auxiliary relay(compressor)
HZ	Auxiliary relay(heater)
30CZ	Auxiliary relay(check)
X1·2	Auxiliary relay(defrost)
IB	Indoor board
TH2	Thermistor(pipe)
52F2~4	Contactor(fan O/D)
FZ2~4	Auxiliary relay(fan O/D)
TH5	Thermistor(room temp)
R/C	Remote controller
DSA	Surge absorber circuit board

ELECTRICAL OPERATION FLOW CHARTS

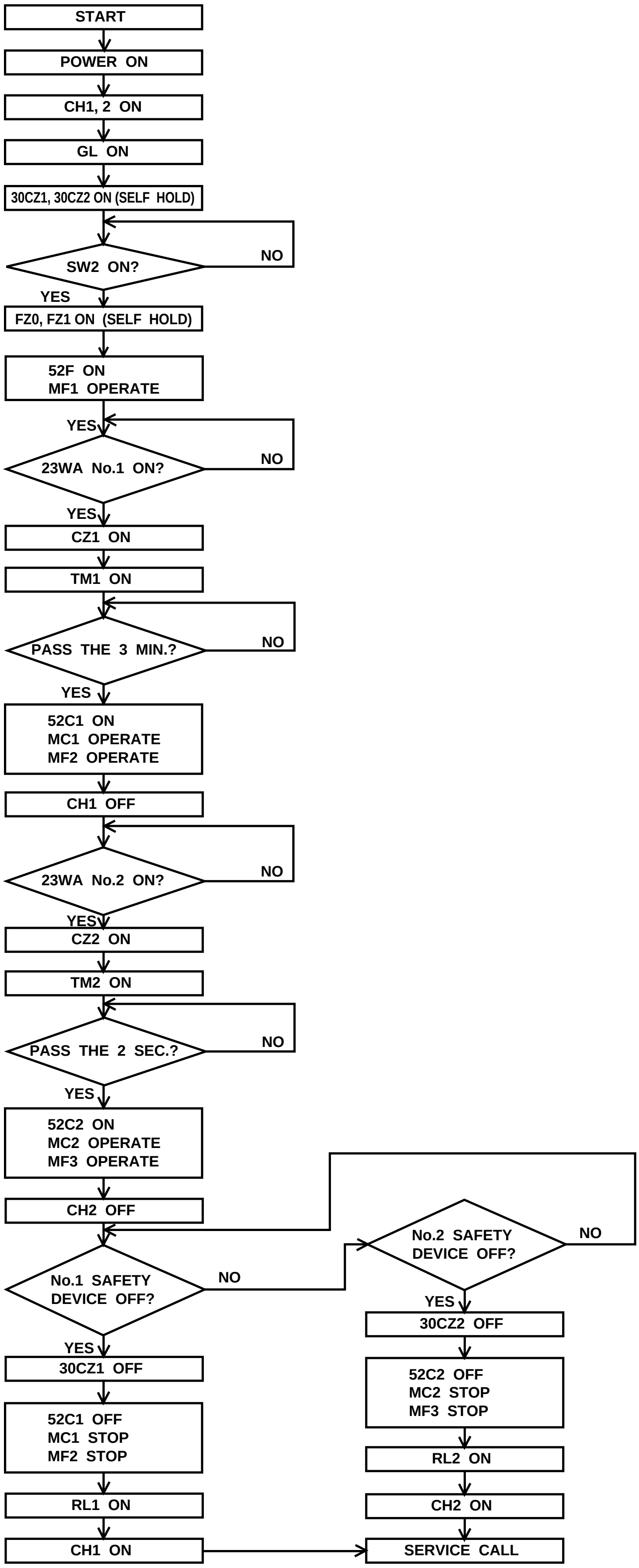
PR-5, 8, 10YC



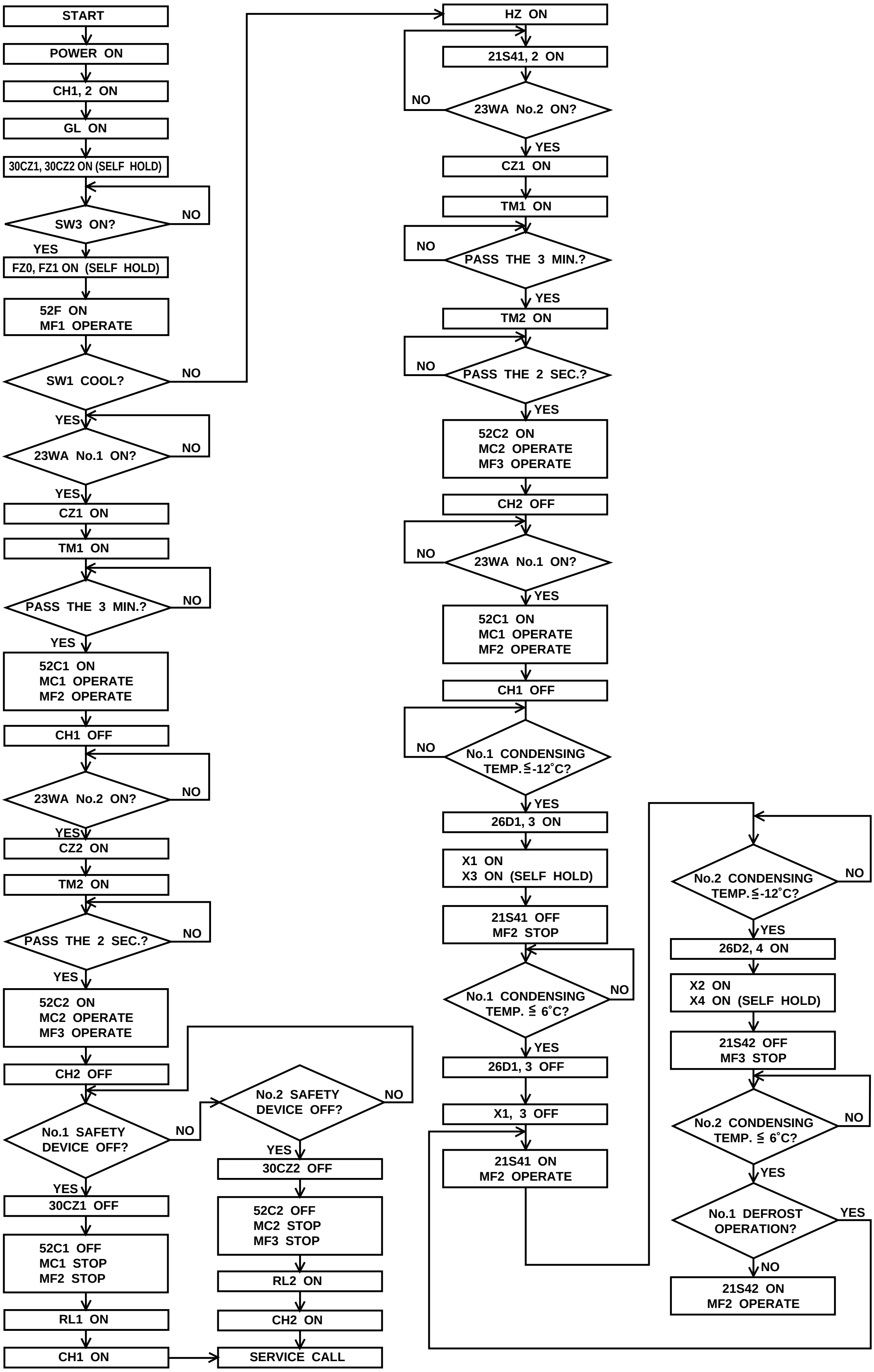
PRH-5, 8, 10YA
PRH-5, 8, 10YA-L



PR-15, 20YC

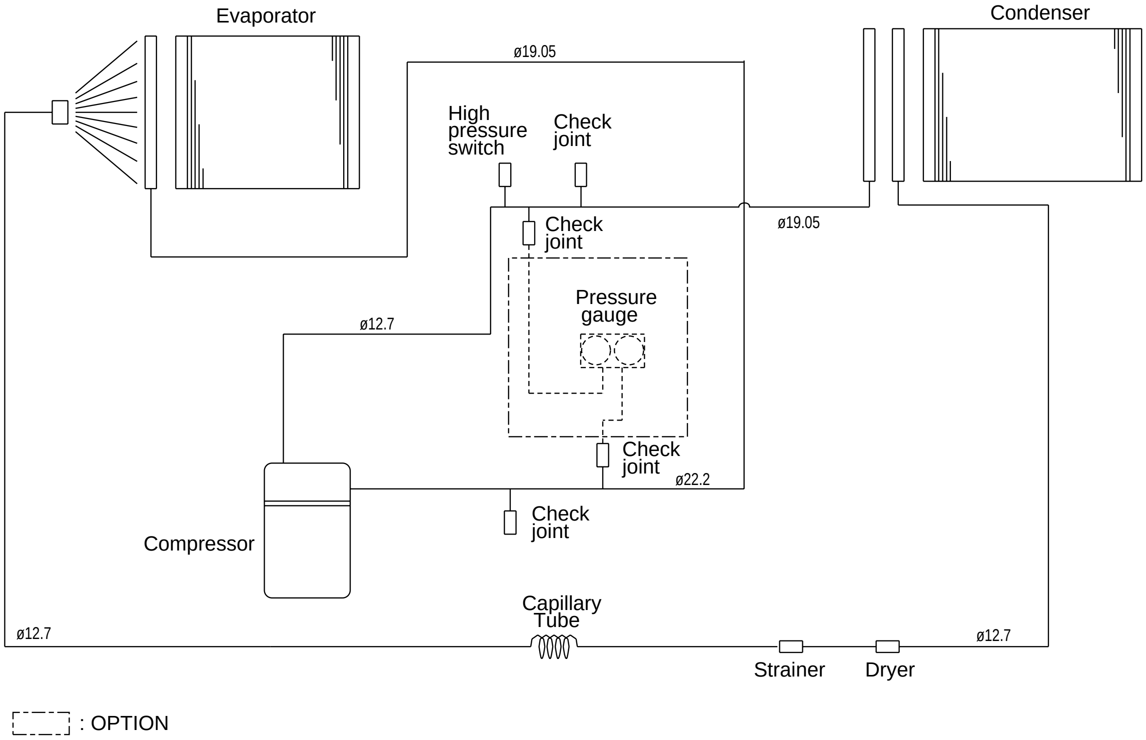

START
POWER ON
CH1, 2 ON
GL ON
30CZ1, 30CZ2 ON (SELF HOLD)
SW2 ON?
NO
YES
FZ0, FZ1 ON (SELF HOLD)
52F ON
MF1 OPERATE
YES
23WA No.1 ON?
NO
YES
CZ1 ON
TM1 ON
PASS THE 3 MIN.?
NO
YES
52C1 ON
MC1 OPERATE
MF2 OPERATE
CH1 OFF
23WA No.2 ON?
NO
YES
CZ2 ON
TM2 ON
PASS THE 2 SEC.?
NO
YES
52C2 ON
MC2 OPERATE
MF3 OPERATE
CH2 OFF
No.1 SAFETY DEVICE OFF?
NO
No.2 SAFETY DEVICE OFF?
NO
YES
30CZ1 OFF
52C1 OFF
MC1 STOP
MF2 STOP
RL1 ON
CH1 ON
YES
30CZ2 OFF
52C2 OFF
MC2 STOP
MF3 STOP
RL2 ON
CH2 ON
SERVICE CALL

PRH-15, 20YA
PRH-15, 20YA-L



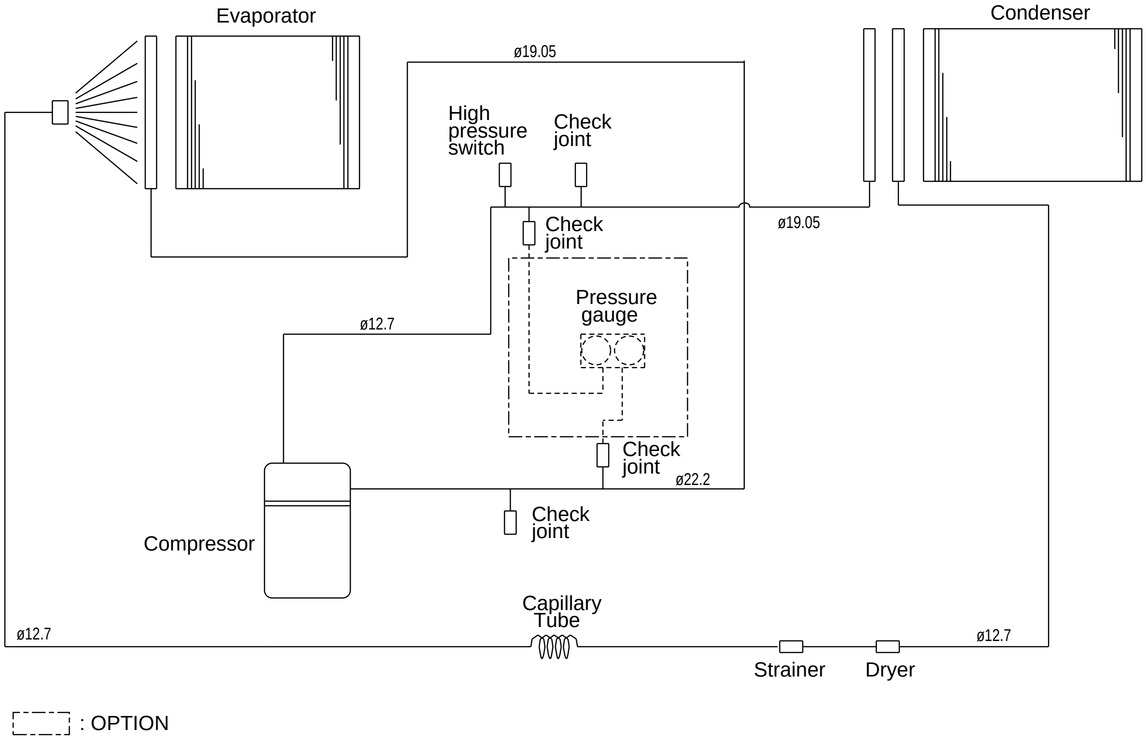
REFRIGERANT SCHEMATICS

PR-5YC

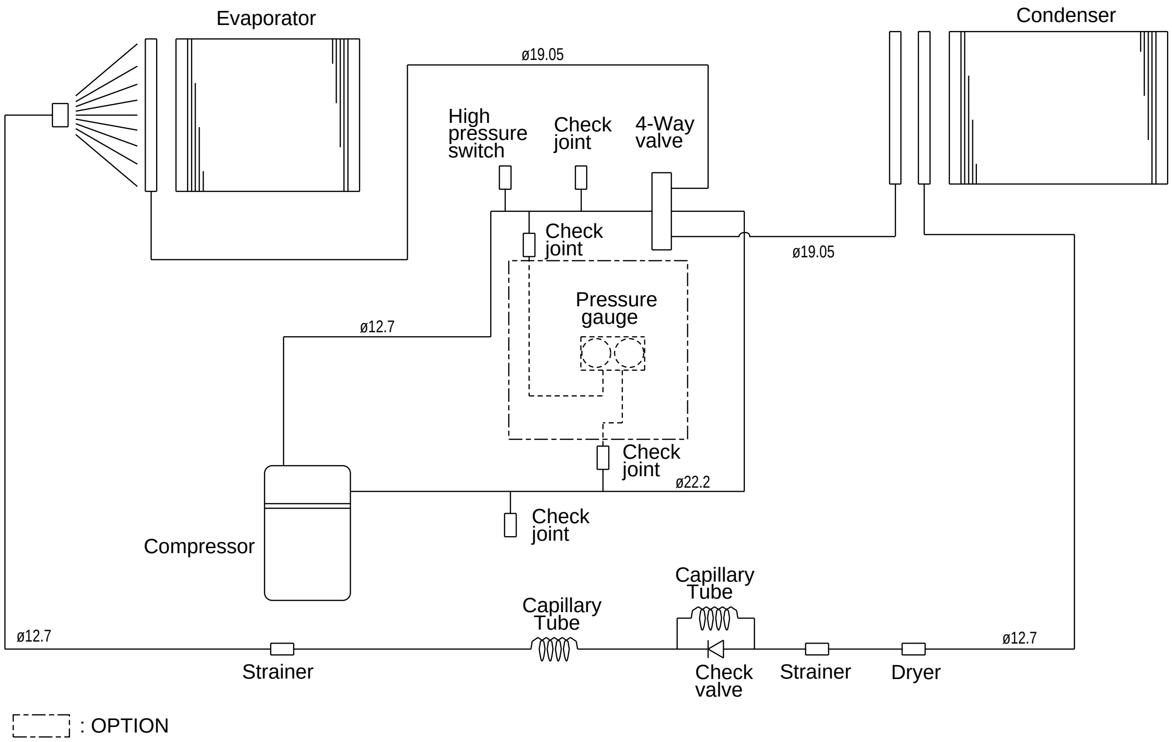


Notes: This schematics shows one refrigerant cycle.
PR-15,20YC or PRH-15,20YA or PRH-15,20YA-L is composed of two refrigerant cycles.

PR-8, 10, 15, 20YC

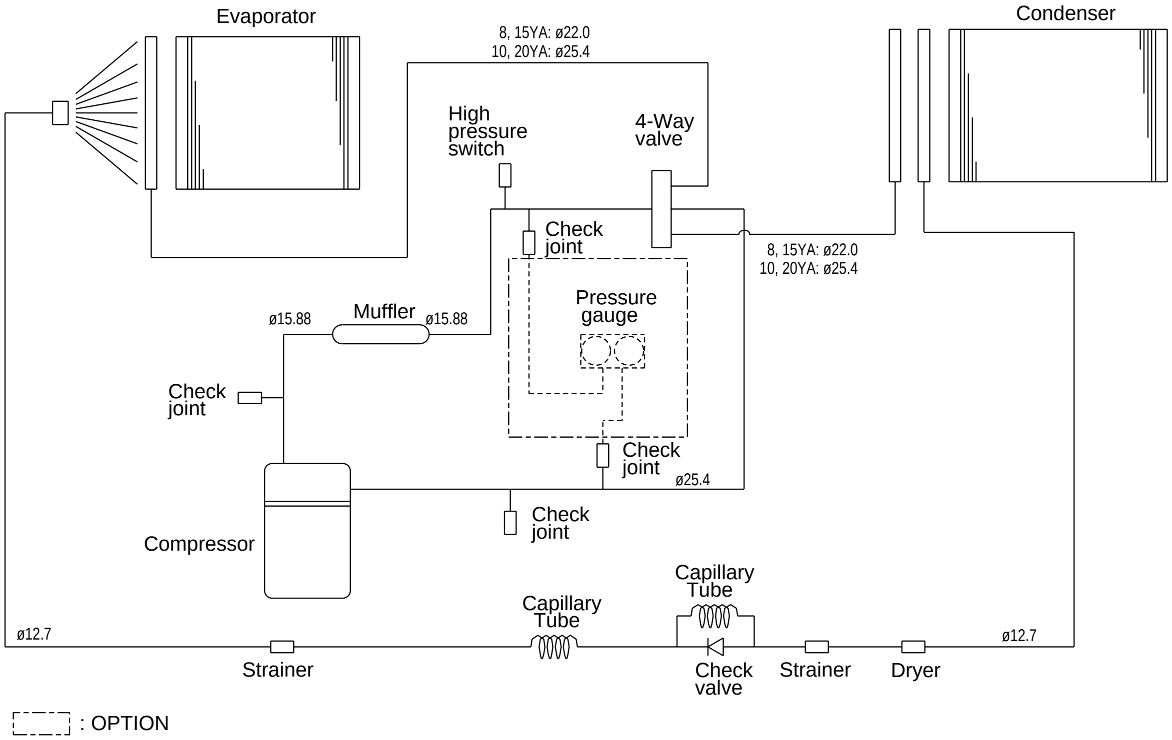


PRH-5YA

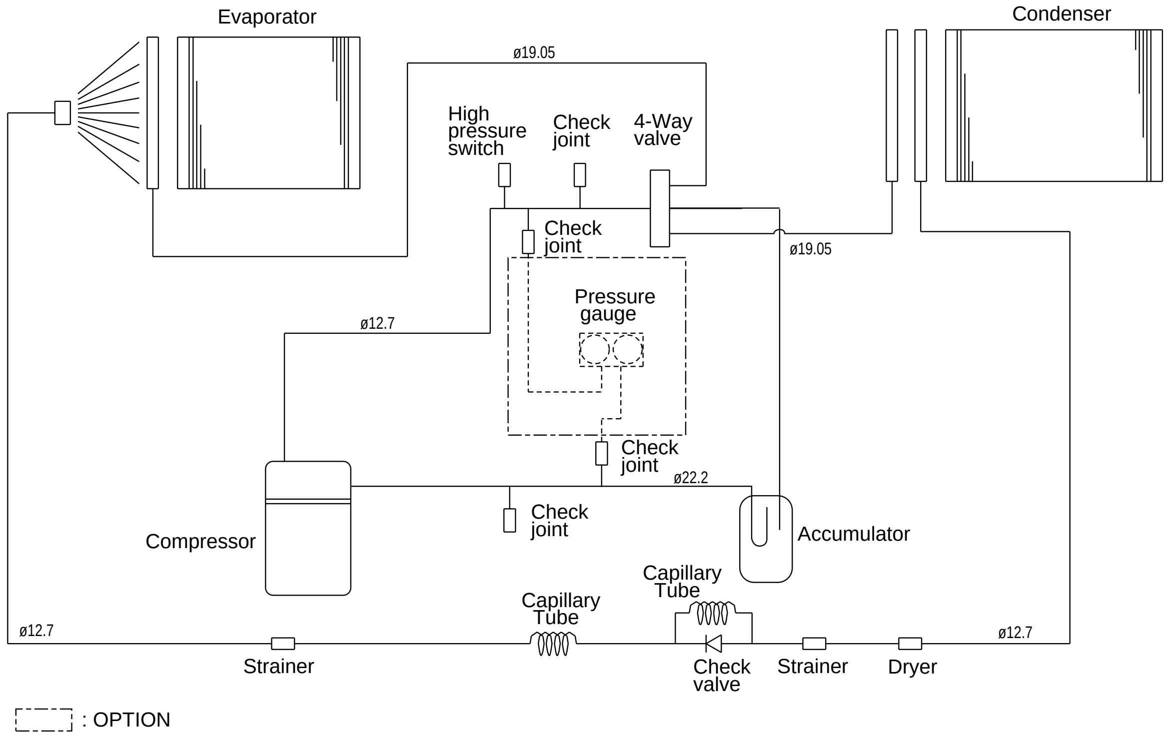


Notes: This schematics shows one refrigerant cycle.
PR-15,20YC or PRH-15,20YA or PRH-15,20YA-L is composed of two refrigerant cycles.

PRH-8, 10, 15, 20YA

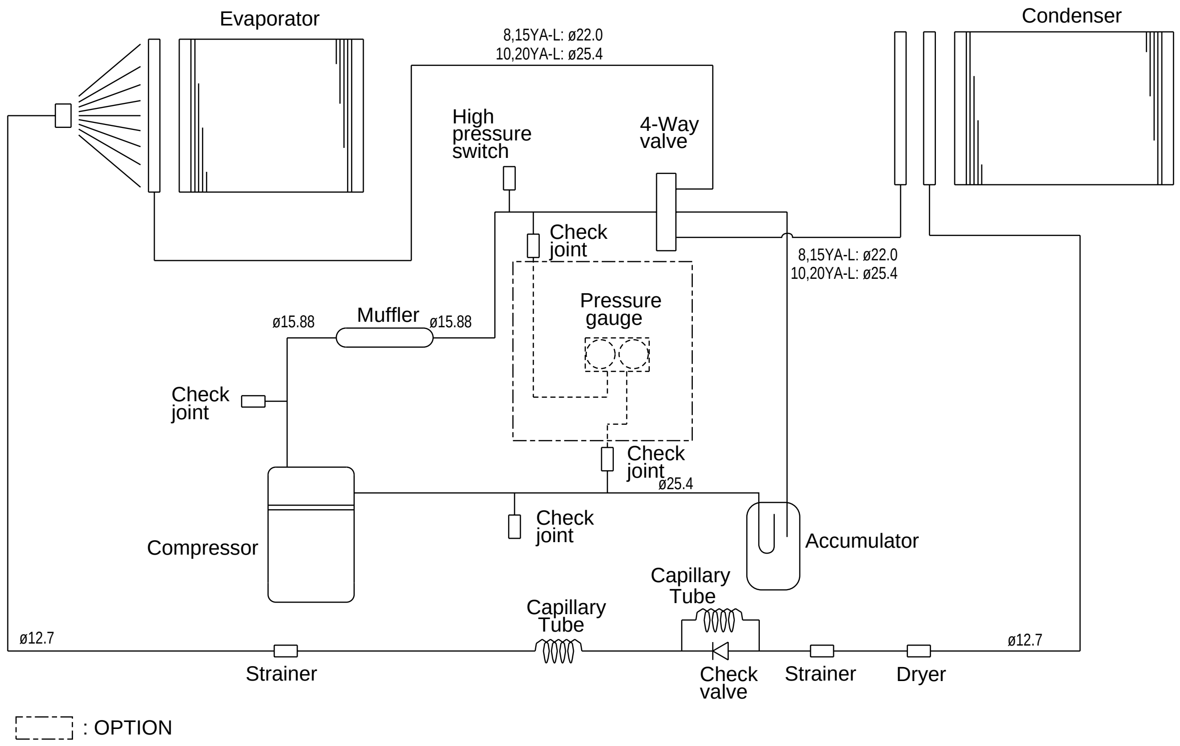


PRH-5YA-L



Notes: This schematics shows one refrigerant cycle. PR-15,20YC or PRH-15,20YA or PRH-15,20YA-L is composed of two refrigerant cycles.

PRH-8, 10,15,20YA-L



SAFETY & CONTROL DEVICES

ITEM	NO.	PR-5YC PRH-5YA PRH-5YA-L	PR-8YC PRH-8YA PRH-8YA-L	PR-10YC PRH-10YA PRH-10YA-L
COMPRESSOR OVER CURRENT RELAY	51C	26.0A	27.5A	31.0A
COMPRESSOR INTERNAL THERMOSTAT	-	110˚C OFF	120˚C OFF	130˚C OFF
HIGH PRESSURE SWITCH	63H	2.94MPa OFF		
FREEZE PROTECTOR	26L	-2˚C IN		
FROST PROTECTOR (ONLY PRH-YA,PRH-YA-L)	26D1,2	-12˚C IN, 6˚C OUT		
INDOOR FAN MOTOR OVER CURRENT RELAY	51F1	2.3A	3.2A	3.6A
OUTDOOR FAN MOTOR OVER CURRENT RELAY	51F2	2.0A		
OUTDOOR FAN MOTOR INTERNAL THERMOSTAT	-	150˚C OFF		
FUSE (CONTROL CIRCUIT)	F	3.15A		
FUSE (OPERATION CIRCUIT)	F	3.15A		
OUTDOOR FAN MOTOR OVER CURRENT RELAY (USE THE OPTIONAL PARTS : LOW AMBIENT PARTS)	51F3	2.0A		

ITEM	NO.	PR-15YC PRH-15YA PRH-15YA-L	PR-20YC PRH-20YA PRH-20YA-L
COMPRESSOR OVER CURRENT RELAY	51C1,2	27.5A	31.0A
COMPRESSOR INTERNAL THERMOSTAT	-	120˚C OFF	130˚C OFF
HIGH PRESSURE SWITCH	63H1,2	2.94MPa OFF	
FREEZE PROTECTOR	26L1,2	-2˚C IN	
FROST PROTECTOR (ONLY PRH-YA,PRH-YA-L)	26D1,2,3,4	-12˚C IN, 6˚COUT	
INDOOR FAN MOTOR OVER CURRENT RELAY	51F1	5.0A	6.6A
OUTDOOR FAN MOTOR OVER CURRENT RELAY	51F2,3	2.0A	
OUTDOOR FAN MOTOR INTERNAL THERMOSTAT	-	150˚C OFF	
FUSE (CONTROL CIRCUIT)	F	3.15A	
FUSE (OPERATION CIRCUIT)	F	3.15A	
OUTDOOR FAN MOTOR OVER CURRENT RELAY (USE THE OPTIONAL PARTS : LOW AMBIENT PARTS)	51F4,5	2.0A	

ACCESSORY AVAILABILITY

DESCRIPTION	MODEL NAME	PARTS CODE								
		PR-5YC	PRH-5YA	PRH-5YA-L	PR-8YC	PRH-8YA	PRH-8YA-L	PR-10YC	PRH-10YA	PRH-10YA-L
K-Remote controller	PR- YC-K	○	-	-	○	-	-	○	-	-
	PRH- YA-K	-	○	-	-	○	-	-	○	-
	PRH- YA-LK	-	-	○	-	-	○	-	-	○
Low temperature cooling	PR- YC	○ PAC-201LC	-	-	○PAC-202LC	-	-	○PAC-203LC	-	-
	PRH- YA	-	○ PAC-201LC	-	-	○PAC-202LC	-	-	○PAC-203LC	-
	PRH- YA-L	-	-	○PAC-201LC	-	-	○PAC-202LC	-	-	○PAC-203LC
Pressure gauge	PR- YC	○ PAC001PG	-	-	○PAC002PG	-	-	○PAC003PG	-	-
	PRH- YA	-	□PAC001PG	-	-	□PAC002PG	-	-	□ PAC003PG	-
	PRH- YA-L	-	-	○PAC001PG	-	-	○ PAC002PG	-	-	○PAC003PG
Fin guard	PR- YC	□ PAC101FG	-	-	□ PAC102FG	-	-	□ PAC103FG	-	-
	PRH- YA	-	□ PAC101FG	-	-	□ PAC102FG	-	-	□ PAC103FG	-
	PRH- YA-L	-	-	□ PAC101FG	-	-	□ PAC102FG	-	-	□PAC103FG

DESCRIPTION	MODEL NAME	PARTS CODE					
		PR-15YC	PRH-15YA	PRH-15YA-L	PR-20YC	PRH-20YA	PRH-20YA-L
Low temperature cooling	PR- YC	○ PAC-201LCX2(PCS)	-	-	○PAC-201LCX2(PCS)	-	-
	PRH- YA	-	○PAC-201LCX2(PCS)	-	-	○PAC-201LCX2(PCS)	-
	PRH- YA-L	-	-	○PAC-201LCX2(PCS)	-	-	○PAC-201LCX2(PCS)
Pressure gauge	PR- YC	○ PAC001PGX2(PCS)	-	-	○PAC001PGX2(PCS)	-	-
	PRH- YA	-	□ PAC001PGX2(PCS)	-	-	□PAC001PGX2(PCS)	-
	PRH- YA-L	-	-	□PAC001PGX2(PCS)	-	-	□PAC001PGX2(PCS)
Fin guard	PR- YC	□ PAC104FG	-	-	□PAC105FG	-	-
	PRH- YA	-	□PAC104FG	-	-	□PAC105FG	-
	PRH- YA-L	-	-	□PAC104FG	-	-	□PAC105FG

○ :Factory install

□ :Field install

PHYSICAL DATA

[PRODUCT]		ROOFTOP AIR-COOLED HEATPUMP PACKAGED AIR CONDITIONERS				
Product type		PR,PRH,PRH-L SERIES				
Product number : Cooling type		PR-5YC	PR-8YC	PR-10YC	PR-15YC	PR-20YC
Product number : Heat pump		PRH-5YA	PRH-8YA	PRH-10YA	PRH-15YA	PRH-20YA
Product number : Heat pump		PRH-5YA-L	PRH-8YA-L	PRH-10YA-L	PRH-15YA-L	PRH-20YA-L
Capacity	kw	17.6	28.1	35.2	52.8	70.3
Cooling capacity (AS1861)	kW	16.3	23.8	29.7	46.3	60.8
Sensible Cooling capacity (AS1861)	kW	13	19.7	25.3	38.4	50.2
Cooling power consumption (Input)	kW	5.4	8.3	11.4	16.8	22.7
ByPass Factor		0.19	0.24	0.18	0.18	0.11
Heating capacity (AS1861) (Only PRH-YA,PRH-YA-L)	kW	15.1	23	32	45.5	61.2
Heating power consumption (Only PRH-YA,PRH-YA-L)	kW	4.6	7	9.6	14.4	19.3
[ELECTRICAL]						
Design voltage	Volts	415				
Cycles	Hz	50				
Phases		3				
Power supply	Volts	415				
Control voltage	Volts	240/24				
Maximum voltage	Volts	415				
Minimum voltage	Volts	380				
Approx. starting current	Amps	62	87	100	115	135
Unit current (Nominal voltage and AS1861 maximum conditions)	Amps	12.8	20.6	25.7	37.9	50.9
Fan motor hp	HP	1.0	1.5	2	3	4
Fan motor current	Amps	2.26	2.90	3.28	4.72	6.06
Fan motor speed	rpm	1,400	1,410		1,420	
[COMPRESSOR]						
Make		COPELAND				
Model		CRNQ-0500-TFD	QR90K1-TFD	QR12M1-TFD	QR90K1-TFD	QR12M1-TFD
Type		HERMETIC LINE START (RECIPROCATING)				
Quantity		1	1	1	2	2
Nominal motor hp	HP	5	7.5	10	2×7.5	2×10
Locked rotor current	Amps	59.5	83.4	95.2	83.4	95.2
Normal run current (AS1861)	Amps	7.65	11.7	15.62	2×11.74	2×15.22
Swept volume	cc/rev	101.92	177.45	221.8	2×177.45	2×221.8
Bore	mm	49.78	55.58			
Stroke	mm	26.19	18.29	22.86	18.29	22.86
Speed	rpm	2,900				
Number of cylinders		2	4			
Oil charge	ml	2,070	3,250		2×3,250	
Type of oil		Calumet R015 or Witco 3GS				
Crankcase heater	watts	40	70		2×70	
[REFRIGERATION SYSTEM]						
Refrigerant		R22				
Refrigerant charge per circuit	kg	3.6	4.6	5.8	2×4.6	2×5.8
Number of refrigerant controls		1	1	1	2	2
Refrigerant control		Capillary tube				
Reverse cycle valve (Only PRH-YA,PRH-YA-L)		4-Way valve				
Defrost system (Only PRH-YA,PRH-YA-L)		Reverse cycle defrost				
[EVAPORATOR]						
Quantity		1	1	1	2	2
Face area	sq.m	0.53	0.69		2×0.65	
Rows deep		3	3	4	3	4
Rows high		26	26	26	30	30
Finned length	mm	800	1,046		2×850	
Face velocity	m/s	1.7	2.0	2.4	2.2	2.4
Fins per meter		512	512	512	473	512
Fin material thickness	mm	0.12				
Fin material		Aluminium				
Fins pitch	mm	1.95	1.95	1.95	2.11	1.95
Tube diameter	mm	9.52				
Gauge of copper tube	mm	0.35				
Number of circuits		10	13	17	11	15

[PRODUCT]		ROOFTOP PACKAGE AIR COOLED HEATPUMP AND COOLING ONLY UNITS				
Product type		PRH SERIES				
Product number : Heat pump		PRH-5YA	PRH-8YA	PRH-10YA	PRH-15YA	PRH-20YA
[INDOOR AIR CIRCUIT]						
Number of blowers		1	2	2	2	2
Diameter of blowers	mm	253			393	
Width of blowers	mm	182			282	
Blower drive		Beltdrive				
Fan motor output	kW	0.75	1.1	1.5	2.2	3.0
Normal fan motor run current	A	2.26	2.90	3.28	4.72	6.06
Air quantity	L/s	900	1,400	1,660	2,800	3,160
External static pressure	Pa	100			200	
Supply air dimensions (h X w)	mm X mm	300 X 850	300 X 1,150		428 X 1,820	
Return air dimensions (h X w)	mm X mm	410 X 900	410 X 1,200		464 X 1,879	
[CONDENSER]						
Quantity		1	1	1	2	2
Face area	sq.m	1.3	1.12	1.46	2X1.07	2X1.32
Rows deep		3	3	3	3	3
Rows high		30	23	30	30	37
Finned length	mm	1,700	1,920		2X1,400	
Face velocity	m/s	1.2	2.8	2.1	2.9	2.3
Fins per meter		473	473	473	473	473
Fin material thickness	mm	0.12				
Fin material		Aluminium				
Fins pitch	mm	2.11	2.11	2.11	2.11	2.11
Tube diameter	mm	9.52				
Gauge of copper tube	mm	0.35				
Number of circuits		11	11	15	11	14
[OUTDOOR AIR CIRCUIT]						
Number of fans		1	1	1	2	2
Diameter of fans	mm	600	800			
Pitch of fans	mm	-	-	-	990	
Fan drive		Direct drive				
Fan motor output	kw	0.15	0.35	0.35	2X0.35	2X0.35
Quantity		1	1	1	2	2
Normal fan motor run current	Amps	0.6	1.3	1.3	2X1.3	2X1.3
Fan motor speed	rpm	650	645			
Air quantity	L/s	1,583	3,083		2X3,083	
[ENCLOSURE AND FRAME]						
Dimension height	mm	1,000			1,200	
Dimension width	mm	1,000	1,300		1,990	
Dimension depth	mm	1,600			1,840	
Color		Munsell 5Y8/1				
Panel thickness	mm	1.2				
Condensate drain size	mm	25.4				
Weight	kg	299	393	413	698	729
Sound power level	dbA	73	75	75	79	79
Sound pressure level	dbA	62	64	64	68	68

INSTALLATION

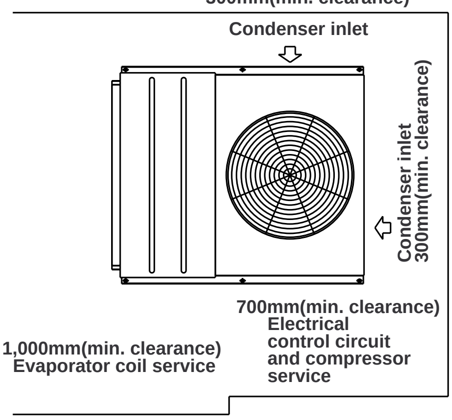
All series of air conditioners are designed for outdoor installations and are to be placed on a slab or rooftop, however if the air conditioner is to be installed in a plant room application, please contact your equipment supplier prior to installation.
Access for both service and installation must be provided to the compressors, control wiring and fans as shown below.

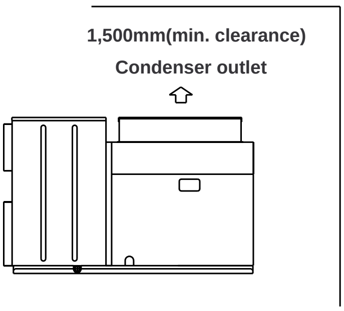
1.Clearances

(1) Care must be taken to prevent recirculation of the condenser air. To stabilize compressor condensing pressures it is recommended that wherever possible the condenser air inlet side be faced away from prevailing winds.
(2) For rooftop installation, the type of mounting base depends on the roof construction. A built-up roof may not support the weight of the unit and so it may be necessary to support the unit by adding structural members below it.

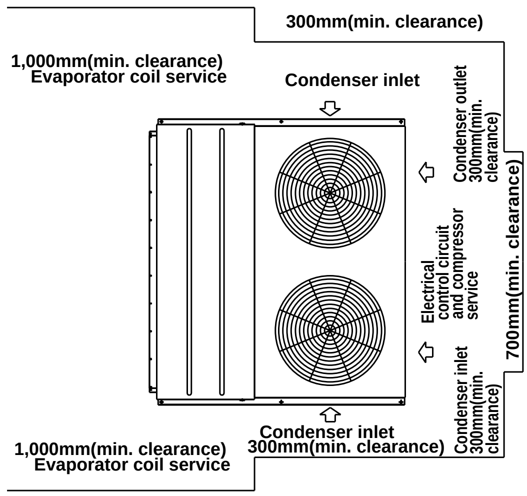
(3) The units are equipped with hoisting plates for rigging and hoisting of the unit. The hoisting plates are located in the base of the unit.
When hoisting the unit with a crane, spreader bars must be used to prevent damage to side panels by the supporting cables.

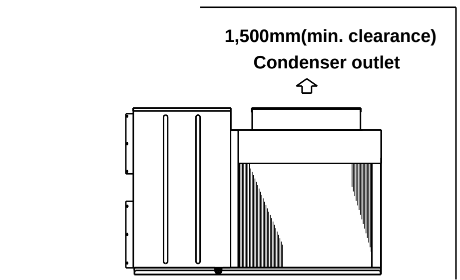
PR-5～10YC
PRH-5~10YA
PRH-5~10YA-L





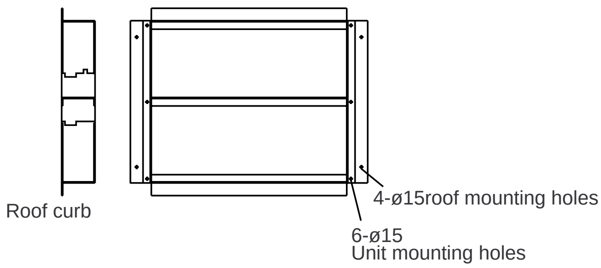
PR-15,20YC
PRH-15,20YA
PRH-15,20YA-L

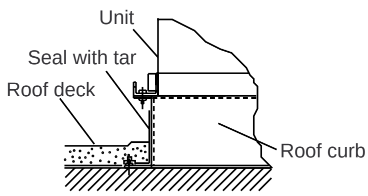




2.Roof Mounting

(1) The figure shows the use of the roof curb available for mounting these units.
(2) The curb should be sealed and fixed to the roof by weather stripping. A suggested means of sealing the unit and roof curb is shown below.





3.Duct Work

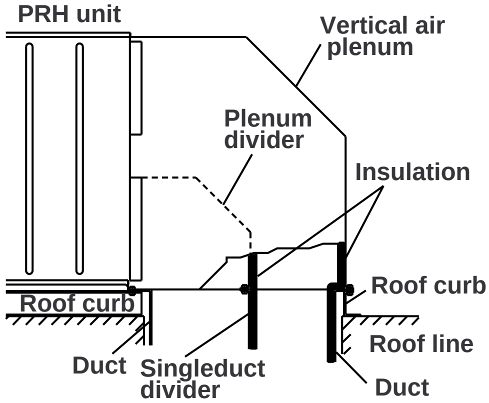
(1) All series units are equipped with horizontal supply and return air openings. Duct connection to the unit should be made with duct flanges and secured directly to the air openings with flexible duct connectors to avoid normal noise transmission.

(2) For vertical air supply, a field supply plenum should be used.
The figure below shows the recommended method for duct connection.

(3) To prevent air leakage, all duct seams should be taped.
Ducts run in air spaces that are not air-conditioned must be insulated and provided with a vapor barrier. Ducts exposed to the outside must be weatherproofed. For quiet operation, we recommend that the insulation on the supply duct be placed inside, lining the duct.

(4) Where ducts from the outside enter a building, the duct openings in the building should be sealed with weather stripping to prevent rain, duct, sand,etc. from entering the building.

(5) Correctly sized filters must be fitted and there is no provision within the unit, however the filters may be installed in the return air.



Duct connection with a vertical air plenum

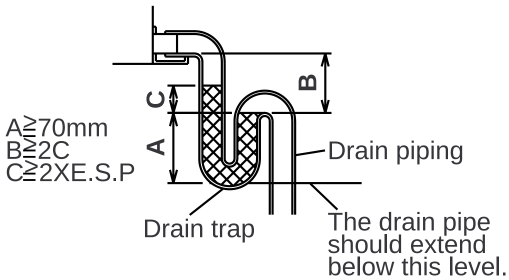
4.Drain piping

(1) A 1 FPT condensate drain fitting is provided. The drain pipe can be led out at the right or left side. Under standard specifications, it is led out at the left side and the right side is covered.

(2) The drain pipe must be provided with a trap on the outside of the unit and also installed at an incline for proper drainage, as shown below.

(3) To prevent condensate formation and leakage, provide the drain pipe with insulation to safeguard against sweating.

(4) Upon completion of the piping work, check that there is no leakage and that the water drains off properly.



Note:ESP=External Static Pressure

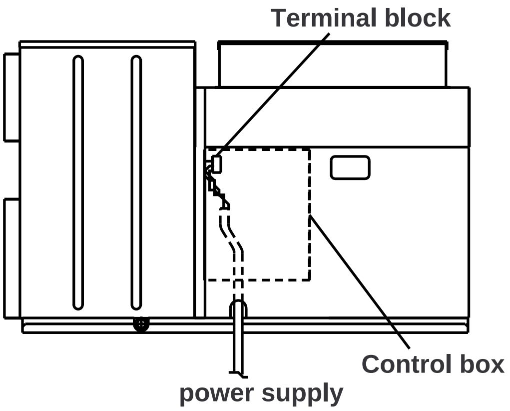
Drain trap for condensate

5.Electrical Wiring

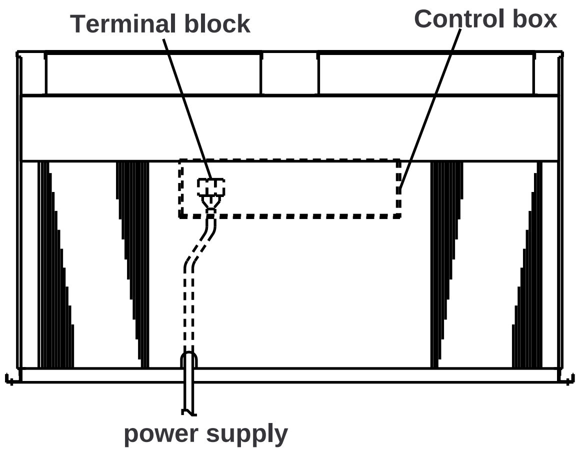
Remove the panel on the right side (PR,PRH-5～10) or the rear side (PR,PRH-15,20) of the unit and connect the units power supply wiring to the proper terminals in the control box, as shown below.

MODEL		PR-5YC PRH-5YA PRH-5YA-L		PR-8YC PRH-8YA PRH-8YA-L		PR-10YC PRH-10YA PRH-10YA-L		PR-15YC PRH-15YA PRH-15YA-L		PR-20YC PRH-20YA PRH-20YA-L	
INDOOR FAN MOTOR OUTPUT <kW>		0.75	1.1	1.1	1.5	1.5	2.2	2.2	3.0	3.0	4.0
WIRING	POWER SUPPLY <mm^2>	5.5		5.5		8		22		22	
	EARTH <mm^2>	5.5		5.5		8		22		22	
MAIN SWITCH < A >		40		50		60		100		100	

※ [shaded] Std.

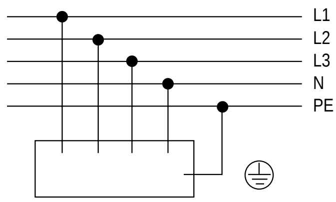


Wiring for PR,PRH-5～10(right side view)



Wiring for PR,PRH-15,20(rear view)

TN-NET SYSTEM (For European models only)



Note:
All electrical wiring must be comply with local electrical authority regulations.

6.Final Checks

After having installed the unit, check that:
(1) The unit is fixed securely.
(2) The unit is installed properly.
(3) The drain pipe is provided with a drain trap.
(4) The electrical wiring has been connected correctly and the terminal screws have been properly tightened.
(5) The duct work has been performed correctly.

7.Trial Operation

(1) Before turning the unit on, measure the resistance between the terminals of the electrical parts and ground with a 500V megger and check that the value is at least 1MΩ. If the measured value is below 1MΩ, do not operate the unit.
(2) Check the operation of the high pressure switch by activating it. Operation should stop when the two leads of the outdoor unit fan motor are removed from the contactor and cooling continues for 5~10min.
(3) Check that the indoor and outdoor fans are rotating in the proper direction.
(4) After having checked the above points, proceed with a trial operation of the unit.

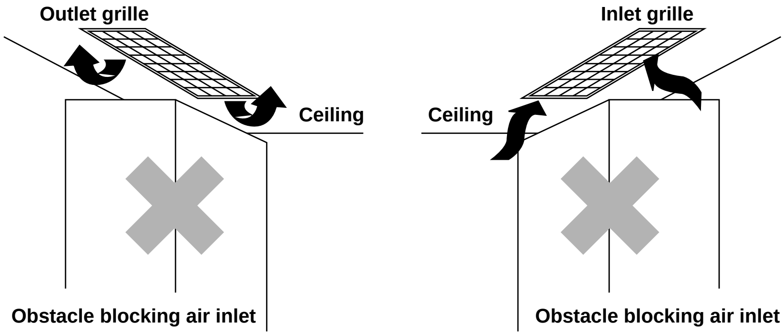
INSTRUCTIONS FOR USE

1.CHECK POINTS FOR OPERATION

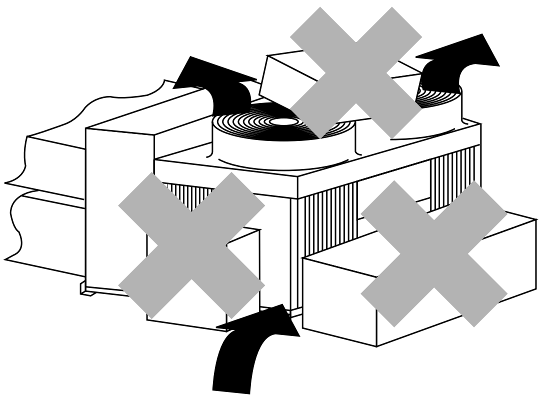
Check the following points before you operate your air conditioner.

(1) Check that there is nothing blocking the flow of air from the air outlet into the air inlet.

Indoor Unit

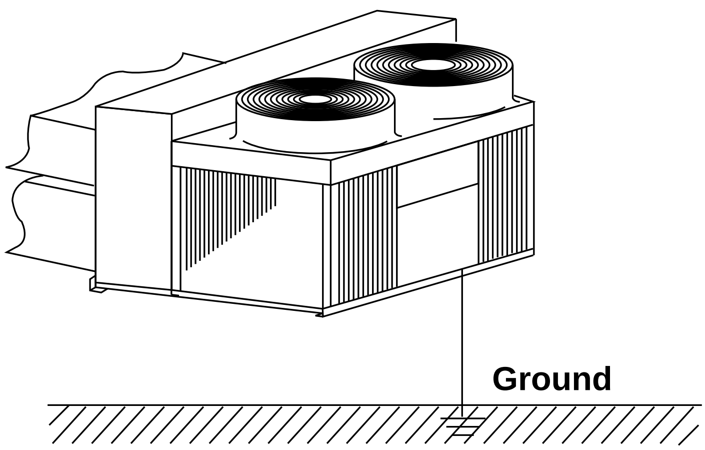


Outdoor Unit



Obstacle blocking air inlet

(2) Make sure the air conditioner is properly grounded by checking the ground terminal .



2.CAUTION FOR USE

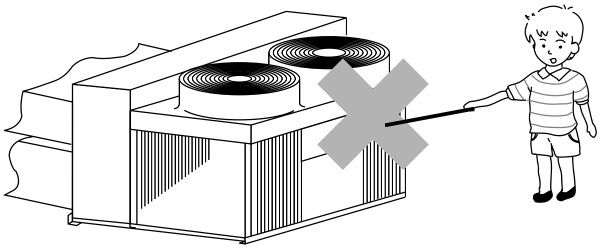
Keep the following points in mind to safeguard against failures and breakdowns.

(1) This air conditioner does not restart within 3min. after shut down.
(These models have a crankcase heater in the compressor. If the air conditioner is shut down for a short time, please do not turn the power switch to OFF, but turn the operation switch to OFF.)



(2) If the air conditioner is shut down by a power failure, set the operation switch to OFF. When the power is restored, normal air conditioner operation can be resumed.

(3) Do not stick rods or other objects through the air outlet during operation since this may result in equipment damage or personal injury.



3.MAINTENANCE

For superior performance and lasting durability, please do not forget to conduct proper and regular maintenance.

3.1 Cleaning the Air Filter

Clean the air filter about once a week with a neutral cleanser and leave it to dry in a shady location. Clean more regularly if the air filter gets very dirty.

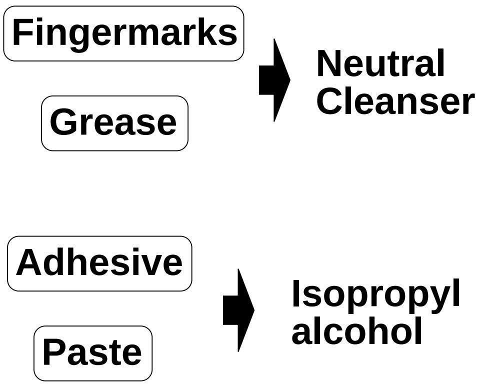
If the filter gets blocked, air will not be sucked in properly, and the cooling effect will deteriorate. Failure to clean the air filter may result in equipment breakdown or malfunctions.

3.2 Cleaning panels

Clean dirt off front panel as follows.

Use a household neutral cleanser such as for dishes or vegetables. Moisten a soft cloth with the cleanser, then wipe lightly. Next,wipe three or four times with another soft cloth moisten with water. Finally, wipe off all the remaining cleanser with a soft cloth.

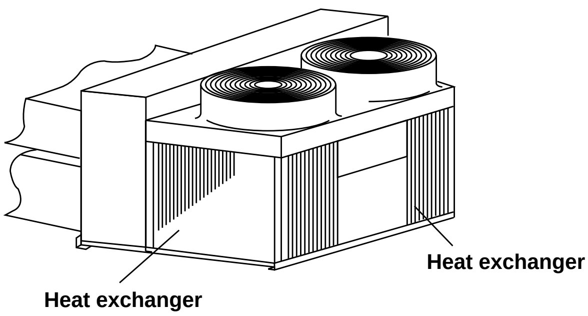
Moisten a soft cloth with the alcohol, then wipe off lightly. Isopropyl alcohol is sold at stores as reagents in small quantities.



> Note:
> Alcohol is highly combustible. Take extreme care when handling. Also, do not use paint or adhesive thinner.

3.3 Cleaning the Outdoor Unit Heat Exchanger

If you use your air conditioner for prolonged periods, the outdoor heat exchanger will become dirty, impairing its function and reducing air conditioners performance. Consult your equipment supplier or air conditioning contractor on how to clean the heat exchanger.



4. PREPARING FOR OPERATION AFTER PROLONGED SHUTDOWN

When the usage season starts, proceed with the following before starting operation:
(1)Clean the air filter.
(2)Do not use the unit immediately. Turn the main power switch on for a period of 3 hours before restarting cooling / heating operation. This allows the compressors to come up to the correct operation temperatures. Failure to do this, could cause compressor failure.

5.PREPARING FOR PROLONGED SHUTDOWN

After the usage season is over, prepare the air conditioner for later use by:
(1)Setting the power switch to OFF.
(2)Consulting your Air conditioning specialist for detailed information.

6.TROUBLESHOOTING

If any trouble occurs, turn the operation (start or run) switch off immediately.

Symptom	Possible cause	Remedy
Both fan and compressor do not run.	Power failure.	Wait for power supply recovery.
	Blown fuse of power source switch.	Contact your Air conditioning specialist.
	Excessively low power source voltage.	Ask your electric power company.
Fan runs but compressor does not run.	The set temperature of thermostat is • excessively high for cooling. • excessively low for heating.	For temperature control, • decrease the set temperature at cooling. • increase the set temperature at heating.
	The room temperature is • excessively low for cooling. • excessively high for heating.	Can not be operated as it is out of temperature control range.
Fan runs but stops immediately.	Air outlet and inlet are blocked.	Remove blocking matter.
Runs but without cooling/heating.	The filter installed in the field is clogged with dust.	Clean it.
	Windows and doors are being opened.	Close them.
	Air outlet and inlet are blocked.	Remove blocking matter.
	The set temperature of thermostat is • excessively high for cooling. • excessively low for heating.	For temperature control, • decrease the set temperature at cooling. • increase the set temperature at heating.
	Insufficient refrigerant charge.	Contact your Air conditioning specialist.

Note:
If the unit does not operate normally after troubleshooting, please contact your local equipment supplier or air conditioning contractor.

SPECIFICATION GUIDELINES

Please supply and install a one piece, air to air reverse cycle air conditioning system.

The system shall be completely assembled, tested and have a complete refrigeration charge ready for installation and operation from the factory.

The system shall operate at outdoor ambient temperatures as high as 46˚C.

The system shall have a total cooling capacity of _____kW or greater with an indoor air quantity of _____L/s at _____˚C db and _____˚C wb entering indoor coil temperature with a _____˚C temperature entering
the outdoor coil.

The system shall have a sensible heat capacity of _____kW or greater with a room db temperature of _____˚C.

The total heating capacity (without electric element heaters) shall be _____kW or greater at _____˚Cdb, _____˚C wb outdoor air conditions, with _____˚C of indoor air entering indoor coil at _____˚C db. One _____ kW electric heater element (accessory) shall be furnished.

The compressors shall be a welded high efficiency hermetic type with internal vibration isolation and be equipped with a crankcase heater.

Compressors shall be protected by a factory installed anti-cycle device and provide a 3 minute delay before compressor can restart.

Coils shall be of non-ferrous construction with mechanically bonded aluminium plate fins. Outdoor coils shall be made, of 9.52mm OD, 0.35mm thick seamless copper tubes mechanically bonded to 0.12mm thick aluminium plate fins.

Coils with multiple stage refrigeration systems shall consist of independent circuits. Face area of the coil shall not be less than _____ M^2. The coil shall be factory pressure and leak tested at 3,233 kPa pressure. The indoor coil face area shall be not less than _____ M^2.

Multi-wing propeller type fans shall be fitted at the condenser and shall be dynamically balanced, to ensure smooth airflow and shall discharge vertically and be direct driven by a weatherproof three phase squirrel cage _____kW induction motor.

The system shall be factory wired and all electrical wiring must comply with the Local wiring code. (Controls and control wiring shall be supplied by the contractor). Compressors and fan motors shall have both internal and current sensitive overload devices.

An automatic defrost control shall be included to accomplish defrosting (only if required) every _____minutes for a period of _____minutes.

A low voltage transformer (24V) shall be factory installed in the unit for an external control circuit.

High pressure switch (pre-set) shall be factory installed.

The enclosure shall be a single, enclosed, weatherproof casing constructed of phosphatised, zinc coated steel with acrylic resin primer and ivory white baked enamel finish.

The unit shall be provided with hoisting plates for rigging and hoisting the unit. The hoisting plates shall be located in the base of the unit.

The unit shall have a 25mm OD male drain connection provided. The drain pipe shall be accessible from either the left or right side of the unit. A blanking cap shall be provided to cap the drain outlet not being used.

The duct (field supply) shall be fully insulated with fiber glass insulation to prevent sweating and to minimize sound.

Each unit shall have a drain pan of 1mm thick steel coated with epoxy resin enamel.

The enclosure shall have openings provided for power connections. Access for both service and installation shall be provided to compressors, control wiring, filters, electric heaters (when fitted) and fans.

Side panels and top panels shall be removable for easy service access.

The unit maximum dimensions shall be : height: _____mm, width: _____mm and depth: _____mm.

Due to continuous product development, these guidelines are subject to change.

MEMO

DATA BOOK PR,PRH

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE DENKI BLDG., MARUNOUCHI,TOKYO 100,TELEX J24532 CABLE MELCO TOKYO

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